

METACOGNITIVE KNOWLEDGE AND CONTROL IN THE USE OF READING
COMPREHENSION STRATEGIES BY FRESHMAN EFL STUDENTS
AT ANKARA UNIVERSITY

A THESIS PRESENTED BY
CÜLİDE ÇELİK
TO
THE INSTITUTE OF ECONOMICS AND SOCIAL SCIENCES
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF ARTS
IN TEACHING OF ENGLISH AS A FOREIGN LANGUAGE

SILKENT UNIVERSITY

AUGUST 1997

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ABSTRACT

Title: Metacognitive Knowledge and Control in the Use of Reading Comprehension Strategies by Freshman EFL Students at Ankara University

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This descriptive study aimed at investigating metacognitive knowledge and control in the use of reading comprehension strategies of ten freshman students in the Departments of American and British Studies at Ankara University.

Recent research has focused on metacognition since it is claimed to play a crucial role in regulating mental processes. However, it is vital to our understanding of the role of metacognitive knowledge and control in the use of reading comprehension strategies. This prediction was tested through a two-step procedure. The data were collected through think-aloud protocols and interviews. In the think-aloud protocols, the students were told to think aloud while they were reading a passage in an attempt to find out their reading comprehension strategies. Through interviews, the students' knowledge about and control of their reading comprehension strategies were investigated.

The results revealed from the analysis of think-aloud protocols indicated that these freshman students use various strategies to understand texts, falling into two groups: strategies that are used to comprehend the content by using non-linguistic cues (content-based), and those that are used to comprehend the content by using linguistic cues in the text (text-based).

One major result that emerged from the analysis of the interviews showed that the students displayed varying amounts of knowledge and control in the use of reading comprehension strategies. Knowledge about the strategies was identified as knowledge about person, task and strategy. Similarly, control of the strategies was explored in three categories: planning, monitoring and revising. However, it was found that the students lacked conscious knowledge about and intentional control of the strategies that they use. Putting it differently, the students did not possess metacognitive knowledge and control.

Another finding illustrated that students demonstrated knowledge about the strategies more than control of the strategies since the latter requires some sort of action to regulate cognitive processes whereas the former does not.

The results of the study suggest that the freshman students use a variety of reading comprehension strategies. However, they need to have metacognitive knowledge and control in the use of their reading comprehension strategies.

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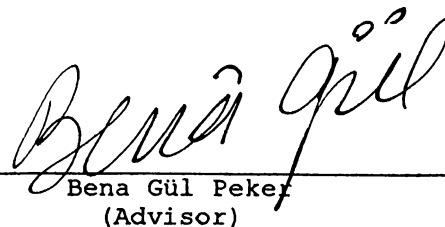
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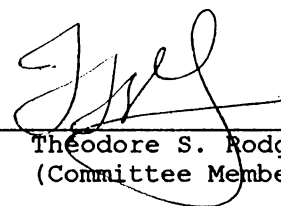
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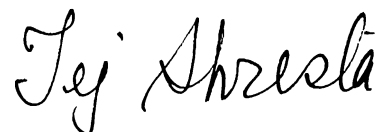
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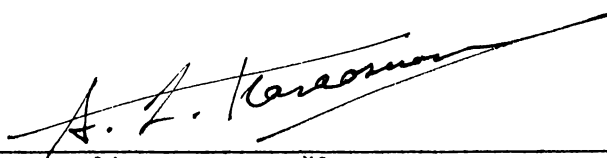


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CHAPTER 1 INTRODUCTION

Reading, by some researchers, is considered to be the most crucial skill for foreign or second language learners (e.g. Carrell et al., 1988; Grabe, 1991). Attempts to understand the process of reading have resulted in different perspectives in reading. With a recent development in reading research -- the interactive model -- reading has attained an important as well as a complex role. The interactive view of the reading process brings to the fore two essential considerations: the purpose of reading and the cognitive processes involved.

Learners use their cognitive processes to acquire knowledge or skills in any situation. The active and dynamic nature of reading lays the foundation for effective use of these cognitive processes to foster comprehension. In other words, when reading for meaning learners use a variety of strategies to meet their needs in comprehending texts.

Learning strategies have many-faceted advantages in language learning. In Oxford's (1990) account, strategies are described as "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations" (p. 8). In reading, strategy use seems to be highly beneficial for the purposes of facilitating comprehension.

The interest in learning strategies in second language learning has spurred a series of studies in an attempt to determine the relationship between strategy use and learning outcomes. Much of the early research focused on the definition and classification of strategy use (O'Malley & Chamot, 1990) whereas later research has included an examination of the factors which positively influence learning outcomes.

Recent studies of reading comprehension have focused on the strategies that readers employ in understanding and learning from texts. Typical reading strategies comprise activities such as examining text captions, identifying main idea of a paragraph and paraphrasing difficult passages.

Awareness of strategy availability, evaluation of strategy usefulness, monitoring whether selected strategies are working, and revising if they are not, comprise a self-examination of one's own mental processes. This knowledge and control of strategies has been referred to as *metacognition*.

Baker and Brown (1984) note that readers who possess metacognition are aware of and have a degree of control over their cognitive processes. Metacognitive knowledge and control of these processes in reading can be identified as abilities such as clarifying the purposes of reading, monitoring ongoing activities to determine whether comprehension is occurring and taking corrective action when comprehension does not occur (cited in Casanave, 1988).

Figure 1 presents the issues investigated in this study and the relationships among them. The diagram shows metacognitive knowledge and control in the use of strategies for effective comprehension in second language reading.

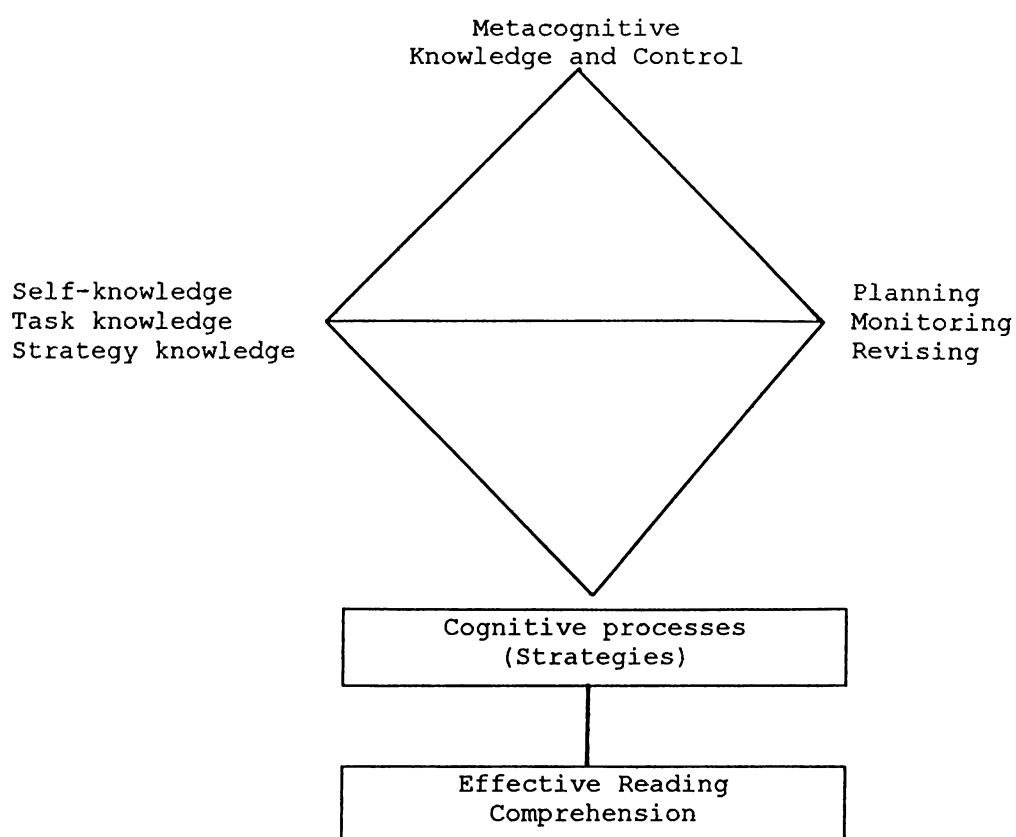


Figure 1. Relationships Among Metacognitive Knowledge and Control, Strategies and Reading Comprehension

Metacognitive knowledge and control, each consisting of three categories as shown above, lead to effective reading comprehension through effective strategy use. Putting it differently, metacognitive knowledge and control put the learner in command of the situation, in favor of better comprehension.

Based on the assumption that students are involved in cognitive processing when they read texts, this study attempts to find out what students know about their own cognitive processes or strategies, and what they actually do to control these processes.

Background of the Study

Effective reading is crucially needed in academic situations in order for students to be able to understand and learn the content of academic material. In the Departments of American and British Studies

at Ankara University, reading plays a vital role in academic studies. Since it is a faculty of letters, students are involved in various reading tasks; that is, they study novels, poems, plays, short stories from both American and English literature, and non-literary texts, that is to say, essays. Hence, they have to handle large amounts of reading material in order to meet the requirements of their coursework.

Since the ability to understand texts is crucial for the students at Ankara University, getting the meaning out of text gains priority. Thematic concerns rank first in their studies of literature. In other words, the scope of most courses is content-based; formal concerns, that is, elements such as narrative technique, language, style, tone, pattern and metrical devices, are given least attention. Literary texts are interpreted and analyzed in terms of themes such as love, jealousy, nature vs. man and alienation. The requirement of learning about subject matter provided in texts is not an easy task for these students. They both need to cope with the hardships of reading in a foreign language and comprehend what they read to meet the requirements of the courses.

In addition to course material, students also need to read critiques about some of the works that they study. This lays an additional burden on students. Having to acquire information from various lengthy, difficult critical essays as well as original texts is often a source of frustration to students. Furthermore, they need to synthesize information from both original and secondary sources. Anecdotal evidence from a group of students supports the fact that they are overwhelmed by reading tasks. A common point made by these students is that they encounter difficulty in understanding both the language and the content of the texts.

In order to accomplish their various reading tasks these students need to be skilled in utilizing reading comprehension strategies. Students' knowledge of how to use strategies appropriately and

effectively, rather than use of specific strategies, is likely to lead to more successful reading comprehension (Anderson, 1991). Students with metacognitive knowledge about and control of cognitive processes or strategies can thus make greater gains in reading tasks.

Statement of the Problem

Having to handle all sorts of texts for academic achievement is often a source of frustration and failure in academic contexts. It is a customary situation at Ankara University that most of the students cannot usually graduate in the anticipated time. Anecdotal evidence suggests that students have difficulty in coping with various texts, which results in academic failure, that is, they cannot pass exams. Furthermore, although they are required to accomplish reading tasks, that is to say, understanding and learning from literary as well as non-literary texts, students' reading abilities are not paid due attention.

A major reason for failure in academic contexts seems to lie in the fact that students lack a general awareness of how they are going to accomplish reading tasks. They do not seem to know how they are going to handle texts, which requires language proficiency, planning for the task and effective reading ability.

Reading large amounts of academic material no doubt requires effective reading ability, which is achieved by making use of strategies. In this respect, "strategic reading" -- employing strategies while reading -- seems to be essential for the purposes of effective reading comprehension (Janzen, 1996, p. 6).

Thus, students need to take responsibility for their own reading behavior; that is, they are more likely to succeed when they possess metacognitive knowledge in order to be able to control their cognitive processes to overcome the difficulty in reading academic material. Putting it differently, if students know what is needed to read effectively and are able to control their strategies, they can, then,

take action to meet the demands of a task. Knowledge of the available strategies as well as having the ability to "take strategic action" -- regulating, adjusting, organizing strategies -- render students more capable readers (Casanave, 1988, p. 299). It appears, then, that students need to do strategic reading in order to master academic competencies.

Effective use of strategies in reading literature contributes to appropriate interpretation of texts, which subsequently leads to academic achievement. The more successful the application of strategies is, the more valuable the text will be perceived to be (Short and Candlin, 1989). Therefore, students need to have metacognitive knowledge and control in order to understand and learn from texts through efficient application of strategies.

Purpose of the Study

In a broad sense, this study is designed to find the relationships between strategy use and metacognitive knowledge and control. The importance of metacognitive knowledge and control of one's own cognitive processes during reading to enhance comprehension in texts provides the basis for this study, with the following aim: to explore metacognitive knowledge and control in the use of reading comprehension strategies by freshman students at Ankara University. To achieve this, the study first sets out to identify the strategies that students use. This lays the groundwork for the main inquiry. Finding out what strategies students use during the process of reading can throw light on understanding their cognitive processes (e.g., Block, 1986; Forlizzi, 1992; Kletzien, 1991).

Significance of the Study

As research on metacognition shows, having knowledge about and the ability to control strategies, rather than mere strategy use, result in better reading comprehension (e.g., Anderson, 1991). The findings of the study are expected to shed light on the students' reading behavior, that is to say, the strategies they use to facilitate comprehension and thus perform reading tasks, and what they know about them and how they control them. Conscious awareness of one's own cognitive processes or strategies and management or regulation of these processes are considered to contribute to successful reading comprehension.

Studies in this area of research make vital contributions to the field in that they open up an avenue of inquiry into types of comprehension deficiencies caused by lack of knowledge about and control of strategies. It is hoped that this study will serve as an example for other educational institutes to initiate investigation into the field of metacognitive knowledge and control in reading comprehension strategies for the benefit of students in an EFL context, particularly those who study literature.

Research Questions

Students' metacognitive knowledge and control in the cognitive processing of written text for the construction of meaning constitute the focus of this study. In light of the main purpose of the study, the following research questions are addressed:

- What strategies do the freshman students at Ankara University use to comprehend texts?
- What metacognitive knowledge and control do the students possess in the use of reading comprehension strategies?

What is investigated, in this study, then, is the strategies that students use in order to achieve reading comprehension and metacognitive

knowledge about and control of their strategies. It is assumed that they use strategies one way or the other to comprehend texts. What they know about and how much control they have over their strategies are the research focus.

Definition of Terms

Interactive model of reading: A model of reading that assumes integrated use of linguistic and background knowledge (Carrell, 1987, 1988; Vacca et al., 1991).

Cognitive processes: Learning strategies in general are described as cognitive processes as defined by Anderson's (1985) cognitive theory, (O'Malley & Chamot, 1990).

Reading comprehension strategies: Kind of strategies that readers use to make sense of what they read (Block, 1986).

Knowledge about strategies: Students' ability to talk about and describe their strategies without conscious awareness.

Control of strategies: Students' regulation of strategies without intentional or planned action.

Metacognitive knowledge: Knowledge which students have about their own cognitive processes, consisting of knowledge about person, task and strategy (Flavel, 1979; Brown, 1985).

Metacognitive control: Students' control of their cognitive processes, thus covering planning, monitoring and evaluating or revising (Schmitt, 1986).

CHAPTER 2 REVIEW OF LITERATURE

There has been a growing concern with the contribution of metacognition to reading ability in English as a foreign or second language. Metacognition has recently received much attention by researchers and teachers because of the possibilities of promoting more successful reading comprehension (Abromitis, 1994; Billingsley & Wildman, 1990; Persson, 1994). While studies conducted by Paris (1991), Persson (1994) and Vermunt (1996) focused on the importance and the effects of metacognition on reading comprehension, researchers like Alexander and Schwanenflugel (1994) and Roberts and Erdos (1993), on the other hand, investigated the role of metacognition in strategy selection and strategy regulation separately. The present study aims at investigating EFL students' metacognitive knowledge and control in such strategy use to understand texts.

Having introduced the key concepts -- second language reading, strategies and metacognition -- in Chapter 1, this chapter reviews the literature on reading theory, reading comprehension strategies and metacognition in order to familiarize the reader with current research. The first section discusses major models of reading laying the necessary foundation for discussion of metacognition in first and second language reading and reading comprehension strategies in a second language. The second section considers reading strategies with special reference to comprehension, including a discussion of think-aloud protocols in reading strategy research. The next section focuses on metacognition, presenting various definitions and discussing the components of metacognition.

Metacognition in Reading Comprehension

Reading Theory

This section provides an overview of the changing views of reading theory. Before the discussion of the literature on reading comprehension strategies and metacognition, it is essential to review some underlying insights as regards the reading process and the models that have evolved out of these insights. Since the focus of this study is metacognitive knowledge about and control of reading comprehension strategies, the reader needs to be familiar with models of reading, which are closely related to how one reads texts.

Research on first language reading has adopted the view of reading as an active rather than a passive process (e, g., Goodman, 1970; Smith, 1971). Even in the 1960s, first language reading began to be referred to by Goodman (1970) as a *psycholinguistic guessing game*, that is, a process in which readers sample the text, predict what is coming next, sample the text again in order to test their hypotheses, then confirm or disconfirm them and make new hypotheses.

According to Goodman (1970), this psycholinguistic processing occurs on a cognitive level. Readers make use of three cue systems -- graphophonic, syntactic and semantic. They do not have to decode every letter or word. Instead, they reconstruct the text by utilizing the graphic cues they have sampled with the help of linguistic code. Putting it differently, readers, as Trayer (1990) notes, are "users of language whose task is to make sense out of what they read" (p. 829). To achieve this, they make use of their expectations and interactions with the text to make sense of what is read. They search for language cues -- letter/sound associations -- as clues to meaning. Further, they use their background or prior knowledge to anticipate word meanings. In brief, this psycholinguistic view of first language reading combines a

psychological understanding of the reading process with a consideration of how language works; that is, this view accounts for reliance on syntactic, semantic and background knowledge of the first language reader.

Notwithstanding the fact that first language reading research has made impressive progress in investigating the process of reading, second language reading research has focused mainly on reading theory and instruction in order to find out how to enhance reading comprehension and build reading strategies. This focus in second language reading research sees reading as a complicated process, which can be described as purposeful, selective, rapid, interactive and flexible (Carrell, 1987; Smith, 1985; Trayer, 1990; Vacca et al., 1991; Wilf, 1988). Alderson (1984) focuses his discussion on whether reading in a foreign language is a reading problem or a language problem. He reports that reading in a foreign language is a source of considerable difficulty and concludes that there is not a simple answer to this question.

Second language reading is often viewed as a multifaceted, complex skill, which is made up of psychological and social elements. In McCormick's (1994) account, reading can never be defined as a mere individual experience. It may be usefully described as a cognitive activity; yet, reading, like every act of cognition, always occurs in social contexts. Both text and readers are ideologically situated within the reading process. Reading a text involves not only analyzing the words on the page, but also the intersection of the repertoires that readers and texts possess. Therefore the act of reading goes far beyond being a subjective phenomenon.

Research on both first and second language reading has focused on the process of reading with comprehension as the ultimate goal. Any element contributing to comprehension is investigated. The role of metacognition in reading comprehension has recently been a key area of interest in this research.

Models of Reading

Similar to reading theories in first language, different models of reading are discussed for second language learning. Models of reading depict the act of reading as a process to construct meaning from print by making use of language information. How a reader translates print to meaning is the key issue in developing models of reading. These models are generally classified as *Bottom-Up*, *Top-Down*, and *Interactive* (Vacca et al., 1991). While the bottom-up model emphasizes the written text, the top-down model focuses on the contribution of the reader. The interactive model, on the other hand, recognizes both bottom-up and top-down processes as interacting simultaneously throughout the reading process. As McCormick (1988) states, the basic controversy among these models concerns the location of the source of control in reading behavior. Whether the text, or the reader, or both, control the reading process is what prompts the discussion of models.

The Bottom-Up Model

Second language reading was previously viewed primarily as a decoding process: a reconstructing of the author's intended meaning through recognizing the letters and words (Carrell, 1987). According to the bottom-up model of reading, the process is initiated by graphic information embedded in print. This model is considered to be linear in that the process starts with letters and progresses to sentences in order for the reader to get the meaning of the text. To decode print to speech, the reader first identifies features of letters; links these features together to recognize letters; combines letters to recognize spelling patterns; links spelling patterns to recognize words; and then proceeds to sentence, paragraph, and text level processing

(Vacca et al., 1991). Bottom-up processing, then, focuses on surface-structure features of printed material. Bloomfield (1942), one of the early supporters of bottom-up approaches to reading, discusses the nature of the reading process in terms of pronouncing the words. As the reader decodes the written text, the meaning comes naturally based on the readers' prior knowledge of the words, their meanings, and the syntactical patterns of his language. In Bloomfield's view, therefore, reading is conceived of as decoding writing into speech (cited in McCormick, 1988).

The Top-Down Model

As opposed to a text-based view of reading, the bottom-up model, the top-down model focuses on readers' approach to text on the basis of prior knowledge, language and the theory of the world that they may have in regard to a particular text (Carrell, 1988). Within the view of the psycholinguistic model of reading which is basically similar to the top-down reading model, the reader is viewed as an active information processor who makes hunches and samples parts of the actual text. The top-down model of reading emphasizes active participation of the reader in the reading process, making predictions, checking out hypotheses, and processing information triggered by background or prior knowledge (Carrell, 1987). Although the reading process is considered to be linear in this model, it is assumed that the reader and the text interact (Nunan, 1991).

The top-down view of reading has become popular because of its notion of combining both psychological and linguistic insights into the process of reading. According to Grellet (1981), reading is a "constant process of guessing" (p.7). Reading is considered to be an activity involving constant guesses that are later rejected or confirmed. That is to say, the reader does not read all the sentences in the same way,

but relies on words or cues to get an idea of what is likely to follow. Similarly, Nuttall (1982) adopts Grellet's view as follows:

We know now that a good reader makes fewer eye movements than a poor one; his eye takes in several words at a time. Moreover, they are not just random sequences of words: one characteristic of an efficient reader is his ability to chunk a text into sense units, each consisting of several words, and each taken in by one fixation of his eyes (p.33).

With the top-down model, the essential part of the reading process is, then, the bringing of meaning to text. Reading, first and foremost, is a matter of anticipating meaning, and secondly a matter of sampling and selecting the print in order to confirm or disconfirm the prediction. Smith (1982), a recognized proponent of the top-down approach, lays stress on comprehension in his theory of reading. Guessing meaning and sampling surface structure, and making less use of the print are the two fundamental comprehension skills. These are based on the idea that "Reading always involves a combination of visual and nonvisual information. It is an interaction between a reader and a text" (p.11, cited in McCormick, 1988). Smith (1985), who assigns comprehension the role as the goal of reading, asserts that reading is not a mere consequence of reading words and letters.

To summarize, neither individual words, their order, nor even grammar itself, can be appealed to as the source of meaning in language and thus of comprehension in reading... Instead some comprehension of the whole is required before one can say how individual sounds should sound, or deduce their meaning in particular utterances, and even assert their grammatical function (p.69).

The Interactive Model

Considering the use of both background knowledge and graphophonic information in the processing of written text, a new approach to second language reading was proposed. In 1980s, the interactive view of reading was forwarded, as a result of an extension of Goodman and Smith's perspectives on reading. As opposed to the former view of the reading process as passive, in this model, reading is seen as process in which both top-down and bottom-up processes interact simultaneously (Carrell et al., 1988). The interactive model of reading suggests that "the process of reading is initiated by formulating hypotheses about meaning and by decoding letters and words" (Vacca et al., 1991, p. 21).

Recent research on second language reading emphasizes reading as an interactive process as it views the process not simply as a matter of deriving information from text, but one of knowledge activation in the reader's mind. Such a perspective on reading discounts the view of reading as a passive and receptive process, and instead, proposes an active, productive and dynamic view of reading. This multidimensional view of the reading process accounts for effective reading.

Although the interactive model of reading is often criticized for lacking a comprehensive general theory, it offers a promising approach to a contemporary theory of reading. Both the text and the reader are fully acknowledged, without excluding one at the cost of the other; they are considered as bound together in an interactive relationship (McCormick, 1988).

Different perspectives on the reading process and comprehension discussed so far are building blocks in understanding metacognition in this study. Reading occurs only when the text is processed and understood. There are many variables that effect this process. Metacognition is one variable that is claimed to play a crucial role in effective reading comprehension. Effective strategy use during the act

of the processing of the text is more likely to result in better grasp of what is read.

Reading Comprehension Strategies

This section first presents the theoretical background for the definitions and processes of reading comprehension. Next, the section discusses the strategies used for comprehension, and reviews a series of studies of reading comprehension strategies in the framework of reading models and metacognition. Lastly, the section considers think-aloud protocols in reading strategy research.

Reading Comprehension: Definition and Cognitive Processes Involved

In its narrow sense, comprehension can simply be defined as the building of meaning from text occurring within the reading process. It extends to cover the utilization of the derived meaning in its broader definition. Clark and Clark (1977) distinguish between two processes in reading comprehension: construction and utilization processes. The former is concerned with the way the reader constructs the meaning of the text through identifying surface structure and ending up with an interpretation at a deep level. Utilization processes, on the other hand, explain how the reader utilizes this interpretation for further purposes — for registering new information, answering questions and the like. The two processes are, in fact, linked in that the reader and the text interact in order for the reader to make the best use of what is read. That is, readers try to build interpretations that will make sense when utilized.

Underlying these two processes is the assumption that readers use a number of strategies by which they infer what constitutes the text. Classified according to the two major views of reading, that is to say, bottom-up and top-down models, reading comprehension involves two main

types of strategies: the syntactic and the semantic. The strategies that are classified as syntactic are used to construct meaning out of the interrelationships between elements of sentence structure, that is, linguistic features. The group of strategies named as semantic are based on construction of meaning from sentences and words.

Smith (1985), a noted proponent of top-down reading, rests his discussion of comprehension on a semantic approach with a different flavor. In Smith's account, comprehension is the lack of confusion, a state of clarity. "Comprehension is not a quantity, it is a state -- a state of not having any unanswered questions" (p. 79). His model of comprehension corresponds to the cognitive structures in the mind behind the eyes. Background knowledge or a theory of the world has the primary function in comprehension. Putting it differently, the theory of the world in our heads serves as the basis of comprehension through predictions, generating questions and the like. Prediction, which is a major reading strategy, serves as the cornerstone in Smith's (1985) view of comprehension:

To summarize: the basis of comprehension is prediction and prediction is achieved by making use of what we already know about the world, by making use of the theory of the world in the head. There is no need to teach children to predict, it is a natural process, they have been doing it since they were born. Prediction is a natural part of living; without it we would have been overcome by the world's uncertainty and ambiguity long before we arrived at school (p. 80).

While Smith lays stress on the inevitability of prediction, he highlights the significance of background knowledge in reading comprehension. The foundation of comprehension is the theory of the world that we carry around in our heads. This theory is constantly tested and modified in our daily interactions with the world. We make sense of the world around us with this implicit knowledge, which exists

naturally. In brief, Smith views comprehension as a naturalistic phenomenon.

This naturalistic view of comprehension is scientifically described by cognitive psychologists. From the perspective of cognitive psychology, a text conveys a sequence of ideas. The reader following the flow of these ideas during the reading process creates a mental structure of them; makes selections and transfers them to her/his mind. The transfer of ideas from a text into the reader's mind occurs through decoding letters, parsing and interpreting sentences. While reading the initial sentences of a text, the reader sets the stage for the new information. Once the topic of the passage is introduced, subsequent sentences add to that information and therefore are easier to process. If a change in topic occurs the reader shifts to a new mental structure (Haberlandt, 1994).

There are three considerations involved in comprehending the information contained in a text: the ability to use background knowledge about the content area of the text; ability to recognize and use the rhetorical structure of the text, and ability to use efficient strategies (Wenden & Rubin, 1987).

Strategies of Reading Comprehension

During the comprehension process, readers use strategies to overcome difficulties in order to facilitate comprehension. Readers, by using effective strategies, process texts actively, monitor their comprehension and thus integrate the information with their existing knowledge. "Comprehension strategies indicate how readers conceive a reading task, what textual cues they attend to, how they make sense of what they read, and what they do when they do not understand" (Block, 1986, p. 465).

Comprehension strategies are quite wide-ranging. Major strategies that are cited in the research are imitating, repetition, memorizing,

identifying, matching, evaluating, transferring, transforming, categorizing, generalizing, guessing, hypothesizing, analyzing, predicting, working out assumptions and translating (Lytra, 1987).

Research on comprehension strategies has mainly focused on describing and examining readers' resources for understanding texts. A study by Block (1986) examined, through think-aloud protocols, the comprehension strategies used by college-level students — both native speakers of English and nonnative speakers. Block describes the strategies used by both groups of students, and relates them to measures of memory and comprehension and to academic performance, concluding that language background does not seem to account for the different patterns in the findings. Another result is that the strategies used by both groups of readers do not appear to differ. The implication derived from the data is that there is some connection between strategy use and the ability to learn.

A great deal of research on comprehension strategies involves a comparison of the performance of good and poor readers. Good readers are often defined as skillful readers, who use various strategies flexibly as well as are aware of their potential strategies. Monitoring comprehension is also attributed to good readers. As opposed to poor readers, good readers adjust their strategies to the type of text and to the purpose for which they are reading. They identify important information in a text and are able to make use of cues to predict information. They readily employ strategies to prevent comprehension breakdowns.

To distinguish between good and poor comprehenders, Kletzien (1991) investigated students' self-reports of strategies used when reading texts at graduated levels of difficulty. Good and poor comprehender high school students were taken as subjects. The results of the study indicate that both groups of students displayed awareness of a wide variety of strategies, but activated only a few of them while

reading. Attention to vocabulary, rereading, making inferences, using prior knowledge were found to be the most frequently used strategies. It was found that good comprehenders were more flexible in their strategy use and able to activate a variety of strategies as the degree of the difficulty of the text increased.

A study by Persson (1994) described good and poor reading ability with special reference to reading comprehension based on metacognition. 53 Swedish students in grades 5 or 8 served as subjects. Data were collected through semi-structured interviews and the recall of three texts with different structures. The results were quite wide-ranging: (1) good readers have the ability to organize their knowledge and use it appropriately; (2) good readers are able to integrate both cognitive and metacognitive abilities; (3) poor readers have poor self-confidence -- they regard themselves as poor learners; (4) poor readers do not have automatic decoding skills, which degrades comprehension; (5) the gap between good and poor readers widened from grade 5 to grade 8; (6) the younger students were more hopeful of their improvement whereas the older students lost their interest. Findings suggest that poor and good readers differ in the way they process text information and monitor their cognitive functions.

Successful reading comprehension relies heavily on the ability to activate background knowledge as well as metacognitive control. Casanova (1988) discusses ways to introduce students to the concept of monitoring. Comprehension monitoring helps students become actively involved with reading tasks. Students, then, become aware of language, concepts and strategies that may aid in resolving comprehension difficulties. Casanova views monitoring behaviors as "strategy schemata" (p. 297). In other words, students make use of their knowledge of strategies to monitor comprehension and thus to be able to be aware of comprehension difficulties. This ability to monitor

comprehension based on knowledge of strategies indicates metacognitive control in reading.

In various research studies which investigate reading strategies, a particular technique has been used: think-aloud protocols. Think-aloud protocols provide rich data (Someran et al., 1994) as regards one's cognitive processes.

Think-Aloud Protocols in Reading Strategy Research

The interest in the reading process has brought about the need to examine how students process texts. One means of examining how students process texts is the think-aloud protocol. This technique enables students to externalize their thoughts verbally. Think-aloud protocols provide verbal data in that students' reports are tape-recorded, transcribed and analyzed.

Think-aloud protocols require readers to stop periodically, reflect on how a text is being processed and express what they do to understand the text. Thus, covert mental processes readers engage in when constructing meaning from texts are externalized (Baumann et al., 1993).

Think-aloud protocols have been used by numerous researchers to identify and describe reading strategies through the analysis of data obtained from first and second language readers (Alderson & Short, 1989; Block, 1986; Cohen & Hosenfeld, 1981; Hare & Smith, 1982; Hosenfeld, 1977; Olshavsky, 1976-1977; O'Malley & Chamot, 1990).

Metacognition

This section focuses on the definition and the significance of metacognition in reading comprehension from philosophical, psychological and theoretical perspectives. Some fundamental features of metacognition are discussed with respect to reading comprehension, coupled with research evidence.

Metacognition is defined by many researchers (Garner, 1987; Oxford, 1990; Stewart & Tie, 1983) as cognition of cognition, beyond, beside or with the cognition, and knowing about knowing. "If cognition involves perceiving, understanding, remembering, and so forth, then metacognition involves thinking about one's own perceiving, understanding, and the rest," (Garner, 1987, p. 16). Out of these considerations were born such labels as metaperception, metacomprehension, and metamemory. Metacognition remains the superordinate term (Garner, 1987).

Thus, metacognition is generally used to describe our knowledge about how we perceive, think, remember and act. In other words, it is what we know about what we know. At the core of this concept lies the act of *knowing*. In psychological terms, metacognition is thought by some neurologists to occur in the neocortex of the brain, and thus is peculiar to human beings. Metcalfe and Shimamura (1994), in their preface, explain the term with reference to human attributes:

The ability to reflect upon our thoughts and behaviors is taken, by some, to be at the core of what makes us distinctively human. Indeed, self reflection and personal knowledge form the basis of human consciousness. Of course, even without conscious awareness, humans can learn, change, and adapt as a function of the events and contingencies in the social and physical environment... What appears unique to humans and what has fascinated the minds of countless philosophers and scientists is the self-reflective nature of human thought. Humans are able to monitor what is perceived, to judge what is learned or what requires learning, and to predict the consequences of future actions (p. xi).

One definition of metacognition casts light on the relationship between strategy, cognition and reading. According to O'Malley and Chamot (1990), "Metacognition has been used to refer to knowledge about

cognition or the regulation of cognition. Knowledge about cognition may include applying thoughts about the cognitive operations of oneself and others, while regulation of cognition includes planning, monitoring, and evaluating a learning and problem-solving activity" (p. 99).

There are various definitions of metacognition, differing somewhat from one another. Many definitions have tended to emphasize these two points: 1) the knowledge that readers have about their own cognitive resources in relation to the demands of the reading task, and (2) regulation of a reader's cognitive processes, that is to say, control over strategies that are used to identify and overcome difficulties with text (Brown, 1985, cited in Abromitis, 1994). In other words, researchers essentially agree on these two facets of metacognition -- knowledge of cognitive processes and control of these processes. "Metacognition not only means having the knowledge but also refers to your own awareness and understanding of the processes involved and your ability to regulate and direct the processes" (Smith, 1994, p.50).

Although metacognition is an old concept in psychology (e.g., Baldwin, 1909; Dewey, 1910; Gray, 1917; Thorndike, 1917; Yoakum, 1925) , it was Flavell, a noted psychologist, who coined the current usage in the early 1970s. Flavell (1976) defines metacognition as "one's knowledge concerning one's own cognitive processes and products or anything related to them, e.g., the learning relevant properties of information or data" (p.232, cited in Garner, 1987). Flavell also refers to "active monitoring and consequent regulation and orchestration of these processes" (p. 232, cited in Schmitt, 1986).

Figure 2 illustrates the two major components of metacognition as well as the categories.

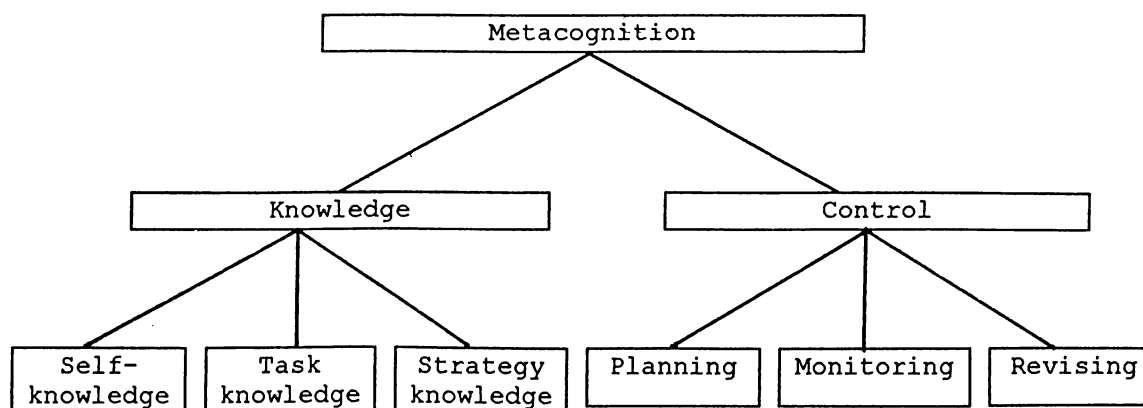


Figure 2. Graphic Presentation of Components and Categories of Metacognition

Metacognitive Knowledge

In Flavel's (1976) account, there are three main categories of metacognitive knowledge. This knowledge is about ourselves, the tasks we perform and the strategies we employ (cited in Garner, 1987).

The first category of metacognitive knowledge, that is to say, self-knowledge, refers to one's own conception of herself/himself as a reader. This knowledge identifies personal strengths and weaknesses in reading tasks. Learners' conceptions of themselves as readers help them find their strengths that might facilitate reading. "The way learners perceive language learning may have a significant impact on their learning outcomes" (Victori & Lockhart, 1995, p. 224).

The second category of metacognitive knowledge is task knowledge. Broadly defined, task knowledge is "knowing what information in a text is relevant to success in a particular learning situation and thus deserving of greater attention" (Wade & Reynolds, 1989, p. 7). Task knowledge involves both text and task analysis. Students who have task knowledge "focus on main ideas and develop integrated bodies of knowledge, in which details and examples are remembered for the purpose of describing or elaborating these ideas" (Wade & Reynolds, 1989, p. 7). Thus students learn the material in a better way.

The texts that are interesting, meaningful and relevant to students' personal goals in learning may greatly help students identify important information in the text and distinguish important information from supporting details. Students who have task knowledge know how to reflect on what they know or do not know about the text to be handled, establish purposes and plans, identify information that is relevant to the task and important in the text, and evaluate their progress in light of their purposes. Task knowledge renders students capable of meeting the demands inherent in especially difficult texts (Wade & Reynolds, 1989).

The third category of metacognitive knowledge refers to knowledge about strategies used to deal with tasks. It is essential that readers be able to process information thoroughly enough to meet the requirements of a task (Anderson & Armbruster, 1984, cited in Wade & Reynolds, 1989). Thus, they need to have strategy knowledge, which involves decisions about what techniques are available and appropriate for a particular reader studying a particular text in order to accomplish a specific reading task.

Metacognitive Control

Having defined the knowledge component of metacognition, we can now turn to a discussion of control of cognitive processes. Metacognitive control refers to the self-regulatory functions of planning, monitoring, and revising directed to comprehension.

According to Schmitt (1986), planning, the first category metacognitive control, involves determining or accepting a purpose for reading and selection of appropriate strategies in relation to text characteristics to perform a task. Self-questioning, predicting, hypothesizing and activating background knowledge are the activities that are performed in planning (see Table 12 for the definitions).

Schmitt (1986) defines monitoring, the second category of metacognitive control, as the ongoing executive control of mental processes. Basically it refers to readers' ability to monitor reading by keeping track of how well they are comprehending. Monitoring comprehension, becoming automatic when mastered, is a problem-solving process that supports critical, flexible, and insightful thinking (Miholic, 1994). Readers who possess metacognitive control know whether they are comprehending and remembering information they want to learn. Putting it differently, they evaluate their progress while reading. When they realize that they are failing to comprehend or learn, they take steps to remedy the problem by adjusting their strategies or adopting new ones. Monitoring involves activities such as summarizing and self-questioning (see Table 4 for the definition of 'summarizing').

Revising constitutes the third aspect of metacognitive control, which consists of activities that are activated only when needed. This process involves modifying strategies if necessary. General activities performed are re-hypothesizing, making new predictions, rereading and clarifying (see Tables 1 and 12 for the definitions). In the revising process, strategies that help to resolve comprehension problems are activated (Schmitt, 1986).

Essentially, it is difficult to observe and measure knowledge and control or regulation of cognition. Part of the reason stems from the fact that these processes operate automatically, especially for efficient readers, at an unconscious level. Investigations into this area have frequently incorporated introspective self-reports, observable behavioral changes, or achievement as indications of the existence of metacognitive ability. Research studies on control of cognitive processes are far more numerous than those of the knowledge aspect (e.g., Henderson, 1963; Palinscar & Brown, 1983; Rankin, 1974; Singer & Donlan, 1982). This is for the most part because of the fact that measures of control are more attainable. Due to validity problems

inherent in studies relying on introspection, it is often difficult to ascertain the degree to which a person has knowledge of his or her cognitive processes (e.g., Armbruster & Brown, 1984; Cavanaugh & Perimutter, 1982; Shores, 1960; Smith, 1961).

Metacognition and Problem-solving

Metacognition, that is to say, knowledge about and control of cognitive processes, plays a vital role in reading comprehension, helping readers be more consciously aware of what and how they read, and how best to learn from what they read. Readers with metacognitive knowledge put themselves in control of the task through planning, monitoring and revising. Burley et al. (1985), who have reviewed the literature on metacognition, assert the following regarding metacognition in reading in four categories (p. 5):

- Metacognitive development differs among all levels of readers and all age groups;
- Metacognition tends to improve with age and develops more adequately with proper instruction;
- Adult/college level students seem to demonstrate some of the metacognitive skills but may possess deficiencies;
- Adult/college level students may be the most successful trainees for metacognitive instruction because they seem to be more aware and capable of self-monitoring while reading than younger students are.

Metacognition is often associated with problem-solving skills. "It may well be that much inefficient cognitive performance should be attributed to an unsophisticated metacognitive knowledge base" (Garner, 1987, p.129). The first step of strategic action is to identify the problem-planning stage. Monitoring the success of one's actions is the next stage. "Observing one's own problem solving efforts is a metacognitive activity" (Haberlandt, 1994; p.389). The role of

metacognition in problem solving performance has been one striking insight gained from study of cognitive processes. Davidson et al. (1994) argue that metacognition aids the problem solver to recognize that there is a problem to be solved; figure out what the problem is, and understand how to find a solution. They propose four metacognitive processes that are considered to contribute to problem-solving: (1) identifying and defining the problem; (2) mentally representing the problem; (3) planning how to proceed; (4) evaluating what you know about your performance.

Strategies, too, help solve problems in any cognitive activity. With use of metacognition in reading comprehension, the benefit of using strategies automatically increases. In other words, strategies and metacognition together underlie the comprehension of a text.

To conclude, self-regulatory and problem-solving functions of metacognition result in effective comprehension in completion of reading tasks. Metacognition is considered to have a significant relationship to text understanding. Many research studies address the importance of metacognition in reading comprehension (e.g., Abromitis, 1994; Baumann, 1993; Burley et al., 1985; Paris, 1991; Persson, 1994). These studies indicate how strong and positive an effect metacognition has on understanding texts.

Specifically, strategy knowledge and control constitute the two most important aspects of metacognition. While strategy knowledge belongs to the domain of metacognitive knowledge, strategy control belongs to the domain of metacognitive control and involves planning, monitoring and revising and thus is active and dynamic. Research evidence indicates that employing strategies while reading a text has a facilitative effect on reading comprehension particularly when coupled with metacognition.

Conclusion

One way to enhance reading comprehension is through efficient use of strategies. Metacognition not only provides knowledge of person, task and strategy, but also the ability to control or regulate these strategies. The "dynamic and integrative nature of metacognition" provides a firm grounding for better comprehension through strategy knowledge and control (Li, 1993, p. 1). In brief, conscious awareness of how one reads texts, and the ability to plan for the task, to monitor comprehension and to take corrective action if comprehension falters, through efficient strategies, are critical to effective processing of text.

All the discussion of the literature on reading theory, reading comprehension and strategies in this chapter was to help understand metacognition in reading comprehension. In addition, references to a series of research studies supported and helped to place this present study in the literature.

Having reviewed the literature on metacognitive knowledge and control in tandem with related issues that are explored in this study, the following chapter considers how the study was carried out.

CHAPTER 3 METHODOLOGY

This study aimed at exploring students' cognition about their cognitive processes, based on the assumption that students are already involved in some cognitive processes while they are comprehending texts. That is to say, the primary purpose of this descriptive study was to investigate students' metacognitive knowledge and control in their use of reading comprehension strategies. To this end, this study first examined the actual strategies that the students are using while they are reading a text, which was essential in order for the students to be able to easily talk about their strategies. Second, the study investigated what students thought about what they were doing when reading a text and learning from it, which was the core of the study.

To sum up, this study set out to analyze the relationship between the following variables:

- metacognitive knowledge and control,
- strategy use

The data were obtained from a homogeneous group of EFL students. The data on students' reading comprehension strategies and on metacognitive knowledge and control were collected during one session with each subject.

Two research techniques were used to obtain data on the students' cognitive processes in this descriptive study: think-aloud protocols and interviews (Miles & Huberman, 1994). To explore students' reading comprehension strategies, think-aloud protocols (TAPs) were selected because they tend to yield rich data about cognitive processes (Someran et al., 1994). To obtain data on students' metacognitive knowledge and control, interviews were used. Interviews were chosen since they could provide highly informative data as regards metacognition (Garner, 1987). Both the think-aloud protocols and the interviews were used successively. The data obtained through both techniques were edited.

Investigation of the strategies through the TAPs laid the groundwork for the discussion and accumulation of information about metacognitive knowledge and control. It was supposed that the subjects could better think about and state their thoughts of the strategies at hand by referring to them, after a recent think-aloud reading.

This study is partly a replication of a study by Block (1986), which used TAPs to investigate the reading comprehension strategies used by college-level students -- both native speakers of English and non-native speakers in an ESL context. The present study is different from Block's in that Block related strategy use to measures of memory, comprehension and academic performance in her study. In this study, knowledge about and control of reading comprehension strategies are investigated.

Both the think-aloud and the interview data were verbal in nature; they required qualitative analysis. A qualitative analysis of the data opens up the discussion of subjectivity. That is to say, being open-minded about method and evidence may be considered to be less than scientific. Nevertheless, part of the scientific attitude lies in the scientists' flexibility in handling data. This is made explicit in a Nobel physicist's words. Bridgeman explains the scientific method as this: "There is no scientific method as such... The most vital feature of the scientist's procedure has been merely to do his utmost with his mind, no holds barred" (Dalton, 1967, p. 60, cited in Bogdan & Biklen, 1992, p. 43). However subjective this study is in nature, the accuracy and the comprehensiveness of the data are what makes it truthful since it is exploratory, descriptive, constructive and interpretive (Bogdan & Biklen, 1992). The goal of this qualitative study was to understand the reading behavior by getting the subjects to verbalize inner dynamics concerning how they read texts and what they know about it. It is based on an approach that assumes that everything might be a potential clue to

a more comprehensive understanding of how the mind works in carrying out a language task.

Subjects

This study was conducted at Ankara University. The subjects were ten freshman students, one male and nine female. They were previously students of the researcher and thus volunteered for the study. They were ex-preparatory students, who had taken English language courses in the preparatory class 25 hours a week and reading instruction four hours a week, comprising analysis of short stories at the intermediate level. They were then admitted to freshman status after they passed an English proficiency exam in September 1996. Their experience in learning English covers approximately seven to eight years, including junior and senior high school education. At present, they study American and English literature in the Faculty of Letters at Ankara University.

The choice of the subjects from students of literature was deliberate. These literature students have a heavy load of reading tasks and requirements as regards reading both literary and non-literary texts. It was assumed that they need to have metacognitive knowledge and control to efficiently carry out their assignments. In brief, they are expected to possess a repertoire of strategies and to have knowledge about and control of these strategies in order to be able to overcome difficulties in understanding and learning from texts.

Furthermore, the subjects' ages, which ranged from 18 to 21, were appropriate in terms of possession of metacognition. As young adults, it was assumed that they possess metacognitive knowledge and control of cognitive processes greater than children (Burley et al., 1985).

Another consideration as regards the choice of the subjects was that individual differences might have an effect on the quality of the verbal data -- oral records of what the subjects report in both the TAPs and the interviews. Some people are capable of verbalizing their

thoughts better than the others (Ericsson and Simon, 1984). Therefore, the subjects were selected from among the volunteer group who could be described as talkative, outgoing and open-minded. They were expected to more readily verbalize their thoughts in the TAPs. In addition, since the researcher knew the subjects personally, it was believed that they would not feel inhibited during the TAPs and the interviews.

Materials

Two texts were used in this study (see Appendices A and B); one for the warm-up stage of the TAPs and the other for the actual TAPs (see Procedure).

Four criteria were followed in selecting the texts: being informative, being interesting, probability of activating background knowledge and readability statistics. First, non-literary texts were chosen for both the warm-up and the actual TAPs although the subjects were literature students dealing with literary texts. The one that was used at the warm-up stage, which was conducted by the researcher herself, was entitled *Political English* (Crystal, 1995); the title of the selection for the TAPs was *Why Study Grammar?* (Crystal, 1995). They were informative requiring the subjects to understand the content and learn from it. Literary texts were thought to be inappropriate in the circumstances of the study, in that they had to be relatively long for the subjects to have an understanding of the content. Since the subjects are interviewed immediately after the TAPs, having to read a long literary text would be exhausting on the part of the subjects.

Furthermore, expository prose meets the needs of the students at university level in that it is a common way to read such a text and construct the meaning, thus learn the subject matter. Since this study set out to find out how students read texts to understand and learn from them, a non-literary expository prose was considered to be appropriate

in the sense that it is informative enough to allow the students to read to learn from it.

Second, the texts were expected to trigger the subjects' interest and curiosity. The text about studying grammar particularly was expected to arouse the subjects' interest because most of them have problems in studying grammar, coupled with the idea that they have to be good at it.

Third, the texts were believed to stimulate interaction between the subjects' anticipations in accordance with their background knowledge and the information presented in the texts. The text entitled *Why Study Grammar?* was thought to activate their conceptions and experiences about studying grammar and thus to prompt strategy use.

Fourth, the texts were selected on the basis of readability statistics (see Appendixes C and D). The readability statistics, which provided information on the structure of words, sentences and paragraphs in the reading texts, was obtained through a word processing program -- Word 7.0. The readability statistics were used to ensure standard difficulty level between the two texts as well as appropriateness to the level of the subjects. According to the statistics, there is not a significant discrepancy between the difficulty levels of the two texts.

As regards the level of the subjects, the texts chosen were not so easy to process; in other words, they were slightly above the subjects' current level. Using a difficult text in the TAPs was deliberate in the sense that the subjects were expected to feel the need to use strategies. That is to say, a difficult text was expected to encourage them to employ strategies. Otherwise, they would not need to use any strategies.

Procedure

Before data were collected, three pilot studies were conducted with freshman students in the Faculty of Letters at Ankara University. The students were first asked to think aloud while reading *Why Study Grammar*. Immediately afterwards, they were asked 18 interview questions. The results of these studies threw light on the actual data collection in five considerations:

- Both the TAPs and the interviews can be held together in one session.
- The subjects find the text, *Why Study Grammar*, interesting.
- Four strategy categories were developed so they could be used during the data collection and data analysis.
- Two interview questions were found to be unintelligible, hence dropped from the study. Thus, the interview consists of 16 questions.
- Although the interview questions are clear-cut in that each aims to obtain specific information regarding specific categories of metacognitive knowledge and control, the responses overlap since the categories are all interrelated.

Data were collected through TAPs and interviews with ten subjects in ten sessions. There were three phases to obtain the data, which were accumulated in one session with each subject:

- Warm-up,
- TAPs,
- Interviews.

Before the TAPs, warm-up sessions were conducted first. In the TAPs, the subjects were asked to verbalize what they actually did while they were reading the text. Immediately afterwards, the subjects were interviewed on their knowledge about and control of strategies.

The verbal data gathered enabled the researcher to determine the subjects' repertoire of comprehension strategies, and their knowledge

about and control of the strategies that they use with reference to the strategies that they actually used in the TAPs.

Warm-up

The warm-up sessions were conducted individually by the researcher (Someran et al., 1994). The setting was the researcher's office at Ankara University. Since the data were collected on a weekend, there was no possibility of any kind of outside disturbance.

First, there was a short period of informal talk, which was intended as a lead-in. Particular attention was paid to create a friendly atmosphere, which was not so difficult since the subjects were already familiar with the researcher and had volunteered for the study. When they were relaxed, as is suggested in the literature (Someran et al., 1994), the subjects were told what they were expected to do (see Appendix E for Warm-up Session Talk). They were told to use either English or Turkish, whichever they felt comfortable with.

Following the lead-in and the warm-up talk, which were held in Turkish, the subjects watched the researcher model the technique, which was intended to familiarize them with the technique. The text used in these sessions was *Political English*. The researcher tried to use the strategies that were determined in advance: anticipating content, asking and answering questions, integrating information, interpreting text, monitoring comprehension, paraphrasing, questioning information in text, questioning meaning of a sentence, rereading and using background knowledge (see Table 1 for the definitions). These strategies were used each time during the modeling.

Think-Aloud Protocols

After the subjects stated that they were ready for the TAPs, a separate text was given, and they were asked to verbalize whatever went

on in their minds without interpreting those thoughts. It was stressed that they should not avoid verbalizing any thoughts they had. It was emphasized that the researcher was not going to assess their level of understanding, but rather focus on what they do to understand a passage.

Each subject thought aloud while reading the text, *Why Study Grammar*. Since they did not stay silent for a long time, the researcher did not need to interfere in the process to tell them to keep on talking. All of the subjects preferred Turkish, except one of them, who used Turkish and English interchangeably. Using the mother tongue may have had an effect on the results given the assumption that they would be better at verbalizing their thoughts in their mother tongue (O'Malley & Chamot, 1990).

The TAPs, which were held in ten sessions, were recorded on tape. Furthermore the researcher took notes of the strategies by jotting down the names of the strategies as the subjects verbalized them. These notes were taken so they could be used along with the analysis of the recorded data. Each TAP lasted for about half an hour.

Interviews

Interviews were held immediately after the TAPs. Before the subjects were questioned, a short informal talk was initiated (McCracken, 1988) to provide a break following the TAPs. The subjects were told to feel free to think about the questions at length before they answered. Questions were asked in English followed by Turkish versions.

Semi-structured interviews were used to explore metacognitive knowledge and control in the use of strategies. One disadvantage of this type of interview is the possible risk of leading the interviewee into the answers that the researcher wants. It was therefore essential for the researcher to be aware of the risk and try to avoid it. The

justification for the choice of this kind of instrument was the researcher's rapport with the respondents, which was thought to facilitate investigating a difficult issue like metacognition.

The interview contained questions regarding the subjects' knowledge about and control of the strategies. In conjunction with the text that they read during the TAPs, they were questioned on the strategies that they employed. The questions varied to obtain information about whether they knew about the strategies that they use and whether they had the ability to control them.

The interview questions aimed to explore:

- what subjects know about strategies, i.e., strategy knowledge,
- what they know about tasks, i.e., task knowledge,
- subjects' conceptions of themselves as readers, i.e., self-knowledge,
- how they regulate strategies, i.e., metacognitive control: planning, monitoring and revising.

Although this study aimed to explore knowledge about and control of strategies, the interview was expanded to cover the questions that focus on task and self-knowledge. In doing so, subjects' knowledge and control of strategies while reading texts were investigated through multiple perspectives. As Li (1993) states, "metacognition cannot be studied in isolation from critical thinking or creativity, nor should it be studied separate from drifting thoughts" (p. 5). Therefore, subjects' knowledge about and control of strategies were examined in light of self-knowledge and task knowledge. In addition, the answers, as revealed from the pilot studies, overlapped since all of these categories of metacognitive knowledge and control are interrelated.

The interview consisted of four parts (see Appendix F for Interview Questions). The first part contained questions which aimed to elicit information on the subjects' own strategies. They were asked whether they know that they are using any strategies while reading a

text, whether they could describe them, and what they think of the strategies that they use in general and the ones that they used in the TAPs.

Furthermore, one question aimed at subjects' knowledge of tasks in terms of text difficulty. They were questioned on whether they were aware of text features that cause difficulty in understanding.

The aim of the second part of the interview was to identify the subjects' conceptions about themselves as readers. The subjects were questioned as to what kind of readers they were, including their conceptions about their progress in reading English texts.

Questions about awareness of whether or not comprehension was occurring, and about the source of comprehension errors constituted the third part of the interview. Subjects' ability to evaluate ongoing comprehension processes while reading through a text, and ability to identify comprehension difficulties were explored.

The last part of the interview consisted of questions about the ability to consciously apply "fix-up strategies" if comprehension fails (Baumann et al., 1993, p. 23). The subjects were asked what they do when they do not understand. Whether they took some sort of remedial action -- applying fix-up strategies -- when comprehension processes bog down was the focus of investigation in this part.

Some of the questions were taken from a model used by Persson (1994) in a study of reading for understanding and the contribution of metacognition to reading comprehension. The investigative model developed for this study, explained above, gathered information about subjects' metacognitive knowledge and control in their strategy use while reading texts. While some questions required short answers, most aimed at exploring in depth subjects' thinking about their own reading comprehension strategies.

Interviews, which were held in ten sessions, were recorded on tape. As in the TAPs, short notes were taken to be used during the

analysis of the transcriptions. Most of the interviews lasted for about half an hour.

Data Analysis

Data analysis consisted of a qualitative analysis of the transcriptions of the TAPs and interviews. Both the think-aloud and the interview data were analyzed in light of coding schemes designed for the analysis of each type of data.

Paralleling the data collection procedures, data were analyzed in a two-step procedure: TAPs and interviews.

Think-Aloud Protocols

In the TAPs, which were transcribed and translated into English, strategies were identified according to a coding scheme, consisting of two groups. The strategy categories in the first group were comprised of content-based strategies, which are used to understand content through non-linguistic cues. In the second group, on the other hand, are text-based strategies, which are used to understand content through linguistic cues. While content-based strategies are based on a semantic view of language and thus refer to constructing meaning of a text out of words and sentences, text-based strategies, which are based on a syntactic view of language, help construct meaning through linguistic features of a text (see Chapter 2, for a discussion of reading comprehension strategies). Table 1 presents these two groups of strategies.

Table 1

Strategy Types and Their Definitions

| STRATEGY (CONTENT-BASED) | DEFINITION |
|--------------------------------------|--|
| 1. Anticipating content | Predicting what content will occur in succeeding portions of text |
| 2. Commenting on behavior or process | Describing strategy use, indicating awareness of the components of the process |
| 3. Correcting | Noticing that an assumption, interpretation or paraphrase is incorrect and changing that statement |
| 4. Exemplifying | Finding examples for particularly abstract expressions or statements to understand better |
| 5. Integrating information | Connecting or relating new information with previously stated content |
| 6. Interpreting text | Making an inference, drawing a conclusion, or forming a hypothesis about the content |
| 7. Monitoring comprehension | Assessing the degree of understanding of text, i.e., being aware of whether and how much comprehension is occurring |
| 8. Questioning information in text | Questioning the significance or veracity of content |
| 9. Reacting to information in text | Reacting emotionally to the information in text, i.e., expressing feelings |
| 10. Recognizing text | Distinguishing between parts of a text and functions |
| 11. Skimming | Going through the text to have a general idea |
| 12. Using background knowledge | Using background knowledge and experience, a) to explain, extend, and clarify content; (b) to evaluate the veracity of content; (c) to react to content |

(TEXT-BASED)

| | |
|---------------------------------------|---|
| 13. Analyzing expressions | Determining the meaning of a new expression by breaking it down into parts; using the meanings of various parts to understand the meaning of the whole expression |
| 14. Paraphrasing | Rephrasing content using different words, but with the same sense (It aids understanding, consolidates ideas, or introduces a reaction.) |
| 15. Questioning meaning of a sentence | Not understanding the meaning of a portion of text and asking, "What does this sentence mean?" |
| 16. Questioning meaning of a word | Not understanding a particular word, and asking questions |
| 17. Rereading | Reading a portion of text either aloud or silently (It gives the reader time to reflect on the content.) |
| 18. Solving vocabulary problem | Using context, a synonym, a dictionary or similar word-solving behavior to understand a particular word |
| 19. Transferring | Directly applying knowledge of words, concepts, or structures from Turkish in order to understand or produce an expression in English |
| 20. Translating | Translating portions of text into Turkish |

The categories were derived from the literature on strategies (O'Malley & Chamot, 1990; Oxford, 1990), and from Block's study (1986) on the comprehension strategies of second language readers.

Interviews

Interviews were analyzed similarly to the analysis of the TAPs. Metacognitive knowledge and control were identified in the transcribed text in light of the interview questions and according to another coding

scheme. To analyze the data on metacognitive knowledge, a coding scheme outlined by Flavel (1981; cited in Garner, 1987) -- indicating knowledge about person, task, and strategy -- was designed. Table 2 shows the three categories of metacognitive knowledge and their definitions.

Table 2

Categories of Metacognitive Knowledge and Their Definitions

| CATEGORIES | DEFINITION |
|--------------------|---|
| Self-knowledge | Conception of oneself as a reader |
| Task knowledge | Perceptions about text difficulty |
| Strategy knowledge | Decisions about what techniques would be appropriate for a particular reader studying a particular text |

To explore metacognitive strategy knowledge, knowledge about person and task was also investigated since these three categories are interrelated (Garner, 1987). Task knowledge was investigated in terms of text difficulty since it was inappropriate in the circumstances of the study in that the subjects should have been required to perform a reading task to explore their knowledge about tasks. Therefore, task knowledge incorporated only text analysis in this study.

The data on metacognitive control, were analyzed according to a second coding scheme. Table 3 displays the three categories of metacognitive control together with the definitions. The categories were derived from the literature on metacognition (Abromitis, 1994; O'Malley & Chamot, 1990; Oxford, 1990; Schmitt, 1986).

Table 3

Categories of Metacognitive Control and Their Definitions

| CATEGORIES | DEFINITION |
|------------|---|
| Planning | Determining or accepting a purpose for reading, and initial selection of appropriate strategies |
| Monitoring | Ongoing executive control of mental processes, and evaluating to determine if the selected strategies are working and whether or not comprehension is occurring |
| Revising | Modifying or employing strategies to correct comprehension failures |

This classification facilitated the analysis of the interview data revealing two major components of metacognition: knowledge about and control of strategies.

In this chapter, how the data were collected and an overview of analysis were presented. The following chapter discusses analytical procedures and the results of the study.

CHAPTER 4 DATA ANALYSIS

This study aimed at examining metacognitive knowledge and control in the use of reading comprehension strategies by ten freshman students. The context of the study was Ankara University. First, the reading comprehension strategies of students were explored. Following this, metacognitive knowledge and control were investigated in the use of students' strategies.

Two instruments were used to conduct this study: TAPs and interviews. As a first step, the researcher modeled the technique before each subject verbalized his or her own thoughts by using the text, *Political English*. The subjects, then, reported their thoughts regarding how they read a text as they read *Why Study Grammar*. Thus, the strategies students employed during the reading process were identified through TAPs.

Immediately after the TAPs, the subjects were interviewed on what they know about how they usually read texts and how they actually read the text, *Why Study Grammar*. The subjects' metacognitive knowledge about and control of strategies were identified through interviews.

The data were collected in ten sessions, with one session per subject. All the sessions were tape-recorded. In addition, the researcher took notes of the strategies deriving from verbalizations and of information regarding metacognitive knowledge about and control of strategies.

This chapter discusses the analysis of the data collected. First the procedures of analysis are described, then the findings are presented. Both the think-aloud and the interview data, are presented in text and tables. The reading comprehension strategies that the subjects used and their metacognitive knowledge and control in the use of strategies were categorized. The last stage of the analysis process included the interpretation of these categories of meaning.

Analytical Procedures

The qualitative data were analyzed in a two-step procedure. First the think-aloud data were coded and categories of strategies were developed. Next, the interview data were analyzed in the same way and categories of metacognitive knowledge and control were developed.

Analysis of Think-aloud Protocols

Reading comprehension strategies used by the subjects were identified from the think-aloud data in light of predetermined categories. In other words, the strategies were determined according to a coding scheme (see Chapter 3 for the predetermined categories).

The steps followed in this procedure were as follows (O'Malley & Chamot, 1990):

- Transcribing the think-aloud data for each subject,
- Identifying the strategies that the subjects used,
- Coding the strategies according to the coding scheme,
- Identifying strategies that match or do not match the predetermined categories,
- Computing the frequencies of the strategies,
- Developing strategy profiles for each subject.

The think-aloud data were first transcribed completely (see Appendix G for Transcription Conventions for Think-Aloud Protocols and Appendix H for Sample Think-Aloud Protocol). Then the Turkish transcriptions were translated verbatim into English. To ensure reliability, a colleague was asked to translate the transcribed data from one of the protocols. No discrepancies causing loss of meaning were found.

Second, certain patterns and categories were determined from the data after an overall reading of the transcriptions. The notes that were taken during the data collection also helped determine the

categories. The verbalizations were segmented by underlining any words, expressions, or sentences that signal reading comprehension strategies.

Afterwards, the TAP verbalizations of strategies used by each subject were coded using the strategy categories as shown in Table 1. Given below is a sample from the think-aloud data and a commentary explaining the basis on which segmentation was made. The reading passage segments are written in lowercase typography and capital letters are used for the subjects' TAP verbalizations. The underlined sections refer to the sections which were in fact underlined in the transcribed text. A slash indicates the beginning and the end of a segment. The sample was translated into English.

Sample / 'Because it's there'. I'VE JUST SEEN THIS SENTENCE. I
 DIDN'T REALIZE IT WHEN I'VE READ IT FOR THE FIRST TIME. / I
 FIND THIS SENTENCE INTERESTING. / HOW WOULD IT BE LIKE IF
 THERE WERE NO LANGUAGES. / BODY LANGUAGE IS TIME CONSUMING
 AND IS NOT SO CLEAR AS SPEAKING. /

Commentary / monitoring comprehension / reacting to text / questioning
 information in text / using general knowledge /

To check on the reliability of strategy coding, an experienced teacher, working on strategy training in her class, was asked to code the data from one of the protocols. No significant instances of disagreement about segmenting and coding were found.

As the TAPs were analyzed, a plus (+) was put next to any strategy which was not one of the predetermined categories. During the analysis of the data, seven more categories were added to the predetermined categories or the "start list of codes" (Miles & Huberman, 1994, p. 59). Furthermore, three predetermined types of strategies -- correcting, skimming and transferring -- that were not reported by any subject, were dropped from the start list of code categories or predetermined categories.

After the strategies were coded, the frequencies were computed. This showed which group of strategies, that is to say, content-based and text-based, occur more frequently.

The coding system helped develop strategy profile charts for all the subjects which display the strategy categories used and with examples (see Appendix I). The charts reveal the reading comprehension strategies used by the subjects while reading a text.

Analysis of Interviews

The interview data were also analyzed according to a coding scheme (see Chapter 3 for predetermined categories). To analyze the data on both metacognitive knowledge and control, four steps were followed:

- Transcribing the interview data for each subject,
- Identifying metacognitive knowledge and control in the use of strategies,
- Coding metacognitive knowledge and control according to the coding scheme,
- Developing categories and subcategories of metacognitive knowledge and control.
- Identifying strategies from the categories of strategy knowledge, planning and revising, apart from the ones determined in the analysis of the TAPs.

First the interview data were transcribed completely for each subject (see Appendix J for Sample Interviews). The transcriptions were translated verbatim into English. To check on the reliability, one of the transcriptions was translated by a colleague and no significant divergence was found.

To identify metacognitive knowledge and control in the use of strategies, the data were segmented by underlining the parts of the text that reveal knowledge about and control of strategies. The segmented

sections were identified as falling within particular categories. Thus the interview data were coded using the predetermined categories presented in Tables 2 and 3. Interview data were then segmented and coded into three main categories for metacognitive knowledge and control according to the criteria determined by interview questions. In other words, interview questions were taken into consideration while coding the data.

Given below are two samples from the data in tandem with commentaries that explain how the segmentation was carried out. The commentaries also explain the two main components of metacognition -- knowledge and control -- and the categories that go with them. The reading passage segments and the interview questions are written in small letters, and capital letters are used for subject responses. Hyphens (-) indicate segments.

- | | |
|------------|---|
| Sample I | <ul style="list-style-type: none"> • Do you think you have made progress in reading English texts since you started university? -I DIDN'T READ LONG TEXTS. I STARTED READING THEM AT THE UNIVERSITY. IF I COULD UNDERSTAND THEM THIS IS BECAUSE I'VE MADE PROGRESS. • How would you describe yourself as a reader? -WHEN I'M OVERWHELMED BY WHAT I READ I DO MY BEST TO UNDERSTAND. • What would you like to do better as reader? -READING, BUT NOT FOR THE SAKE OF READING SOMETHING. YOU SHOULD BE AWARE OF WHAT YOU READ. |
| Commentary | <p>Metacognitive knowledge / Self-knowledge</p> <ul style="list-style-type: none"> -progress in reading long texts -conscientious reader -conscious reader |
| Sample II | <ul style="list-style-type: none"> • What do you do if you do not understand what you read? -IF I DON'T UNDERSTAND A PASSAGE AND IF IT IS BECAUSE OF THE GRAMMAR, I LOOK AT A GRAMMAR BOOK. IF I DON'T STILL UNDERSTAND, BY LOOKING AT THE TITLE OF THE PASSAGE, I GO THROUGH ENCYCLOPEDIAS OR OTHER BOOKS. • Was there anything special you did at the point where you thought you did not understand, <i>Why Study Grammar</i>? -I DIDN'T UNDERSTAND THIS SENTENCE (It is especially critical...) I READ IT ONCE MORE. BUT STILL I DIDN'T UNDERSTAND. THEN I SKIPPED. |

| | |
|------------|--|
| | Metacognitive control / Revising |
| | -fix-up strategies: applying to other sources |
| Commentary | -fix-up strategies employed while reading, <i>Why Study Grammar?</i> : rereading |

After the interview data were coded, three categories of metacognitive knowledge and three categories of metacognitive control were developed including all the subjects: Self-knowledge, task knowledge, strategy knowledge and planning, monitoring, revising. Each category incorporated subcategories, which were developed in light of the predetermined categories and related interview questions.

As a final step, 16 more strategies were identified within the three categories of metacognitive knowledge and control: strategy knowledge, planning and revising. In other words, specific strategies different from the ones that they verbalized in the TAPs were reported by the subjects in the interviews. These strategies are related to how the subjects read texts, what they do before they start reading a passage, and what they do when they do not understand. These strategies cast light on the subjects' metacognitive knowledge and control in the use of strategies.

The analysis of the two sets of data -- think-aloud and interview -- was carried out to find out first, which reading comprehension strategies were used by the ten subjects, and second their metacognitive knowledge and control in the use of strategies. The results of this analysis will be presented in the following section.

Results

This section presents the results of the analysis of both think-aloud protocols and interviews. The results of the TAPs provided a basis on which to discuss metacognitive knowledge and control. The strategies that were identified as a result of the analysis of think-aloud data are presented with sample excerpts. The frequencies of use

for these strategies are also given. All of the data on metacognitive knowledge and control were analyzed and displayed in six different tables.

Think-Aloud Protocols

Using the strategy coding scheme, think-aloud data were analyzed and 24 strategies were identified. Table 4 lists all the strategies that were obtained from the data with their definitions. The examples presented in the table were samples from various subjects' think-aloud protocols. Within the samples, capital letters indicate subject verbalizations; small letters refer to reading passage segments.

Table 4

Strategy Categories with Definitions and Samples

| STRATEGY | DEFINITION AND SAMPLE |
|--------------------------------|--|
| Analyzing expressions | <p>Determining the meaning of a new expression by breaking it down into parts; using the meanings of various parts to understand the meaning of the whole expression</p> <p>BeK: "And the differences they display..." YES WE GRASP what is unique to our mother tongue.. AND IF WE DO THIS, the differences they display will be all the clearer.</p> |
| Anticipating content | <p>Predicting what content will occur in succeeding portions of text</p> <p>BK: Why Study Grammar? I THINK IT TALKS ABOUT HOW IMPORTANT GRAMMAR IS.</p> |
| Asking and answering questions | <p>Questioning information in the text as well as finding an answer</p> <p>MÇ: "Even after a course on car mechanics, we can still drive carelessly." WHY DID THE WRITER GIVE THIS EXAMPLE? BECAUSE GRAMMAR IS SO IMPORTANT AND YOU HAVE TO BE VERY CAREFUL. GRAMMAR IS IMPORTANT FOR LEARNING ENGLISH.</p> |

| | |
|-----------------------------------|--|
| Commenting on behavior or process | <p>Describing strategy use, indicating awareness of the components of the process</p> <p>MÇ: I'M TRYING TO RELATE IT (the "car" example) TO STUDYING GRAMMAR.</p> |
| Exemplifying | <p>Finding examples for particularly abstract expressions or statements to understand better</p> <p>NS: WHEN WRITING AN ESSAY FOR INSTANCE YOU HAVE TO OBEY SOME RULES. SO THESE MORE OR LESS LIMIT YOU.</p> |
| Guessing meaning | <p>Guessing the meaning of an expression, a sentence, or portion of text</p> <p>AÖ: "Learning about English grammar provides a basis for learning other languages." IN THIS SENTENCE THE WRITER'S MOTHER TONGUE IS ENGLISH I THINK.</p> |
| Identifying reference words | <p>Identifying the words such as "it, this..." in a sentence to find out what they refer to in order to connect the meaning</p> <p>BeK: WHAT DOES this REFER TO? HAH putting grammar under the microscope.</p> |
| Integrating information | <p>Connecting new information with previously stated content</p> <p>GÇ: IF KNOWING ENGLISH GRAMMAR MAKES LEARNING OTHER LANGUAGES EASIER Much of the apparatus we need to study English turns out to be of general usefulness.</p> |
| Interpreting text | <p>Making an inference, drawing a conclusion, or forming a hypothesis about content</p> <p>RP: our language can let us down.. WE DON'T SAY APPROPRIATE THINGS ALL THE TIME. SOMETIMES WE CAN UTTER FOOLISH THINGS.</p> |
| Monitoring comprehension | <p>Assessing the degree of understanding of text, i.e., being aware of whether and how much comprehension is occurring</p> <p>BeK: SOME POINTS ARE NOT SO CLEAR BECAUSE I'VE READ IT FOR THE FIRST TIME ONLY AND ALSO THE TEXT IS NOT SUPPOSED TO BE EASY.</p> |
| Questioning information in text | <p>Questioning the significance or veracity of content</p> |

| | |
|-----------------------------------|--|
| | <p>AÖ: WHAT IS IT THAT LIMITS LANGUAGE? THIS QUESTION, How is this done? REMINDS ME OF THIS.</p> |
| Questioning meaning of a sentence | <p>Not understanding the meaning of a portion of text and asking, "What does this sentence mean?"</p> <p>RP: WHAT'S THIS SENTENCE MEAN HERE? (To understand the linguistic...)</p> |
| Questioning meaning of a word | <p>Not understanding a particular word and asking questions</p> <p>GG: WHAT DOES domain MEAN? FIELD?</p> |
| Paraphrasing | <p>Rephrasing content using different words, but with the same sense (It aids understanding, consolidates ideas, or introduces a reaction.)</p> <p>GÇ: "Learning about..." IF WE KNOW ENGLISH GRAMMAR LEARNING OTHER LANGUAGES BECOMES EASIER.</p> |
| Personalizing | <p>Considering an expression or a portion of text from the point of view of the reader herself/himself</p> <p>RP: Why Study Grammar? I COULDN'T SOLVE THIS GRAMMAR PROBLEM.</p> |
| Reacting to information text | <p>Reacting emotionally to the information in text, i.e., expressing feelings</p> <p>BK: I MYSELF DON'T LIKE STUDYING GRAMMAR.</p> |
| Reacting to linguistic features | <p>Reacting to grammatical features of a portion of text</p> <p>NS: IT'S NOT A DIFFICULT PASSAGE. BUT I HAVE PROBLEM WITH THE WORDS. THIS IS I THINK BECAUSE MY VOCABULARY KNOWLEDGE IS LIMITED.</p> |
| Recognizing text structure | <p>Distinguishing between parts and functions of a text</p> <p>NS: "To deal with these problems..." HERE MICROSCOPE IS A METAPHOR BECAUSE GRAMMAR IS NOT A GERM.</p> |
| Rereading | <p>Reading a portion of the text either aloud or silently (It gives the reader time to reflect on the content.)</p> <p>GG: But more than mountains...</p> |

| | |
|----------------------------|---|
| Rereading the whole text | Reading the whole text once more MÇ: I'LL READ ALL OF IT AGAIN |
| Solving vocabulary problem | Using context, a synonym, a dictionary or similar word-solving behavior to understand a particular word BB: I NEED TO LOOK UP let down. |
| Summarizing | Reiterating what a portion of text is about by restating the main ideas AÖ: ..THIS PARAGRAPH SAYS THAT PEOPLE WANT TO IMPROVE THEIR LANGUAGE AND THIS IS OUR GREATEST ABILITY "Our grammatical ability...". |
| Translating | Translating portions of text into Turkish BB: SAHİP OLDUĞUMUZ YARATICI BİR YETENEK OLABİLİR "It is probably the most creative ability we have." |
| Using background knowledge | Using general knowledge and experience, a) to explain, extend, and clarify content; (b) to evaluate the veracity of content; (c) to react to content BeK: "And grammar is the fundamental organizing principle of language." LANGUAGE ALREADY MEANS GRAMMAR. IF A LANGUAGE DOESN'T HAVE GRAMMAR YOU CAN NEITHER SPEAK NOR WRITE IT. |

Note: AÖ, BB, BeK, BK, GÇ, GG, MÇ, NS, RP = subject initials
Quotation marks: passage segments not verbalized by the subjects, providing explanation for the TAP segments. Parentheses: additional explanations regarding the verbalization of the subjects.

As is seen in the table, most of the strategies in the predetermined categories (17) appeared in the results, three of which were not used by any subject (see Table 1). Seven more strategies were identified in the analysis and thus added to the list.

The strategies obtained from the think-aloud data varied among the subjects. The frequencies with which the strategies occurred were computed as a next step. The frequencies of reading comprehension

strategies obtained from the analysis of the think-aloud data are reported in Table 5.

Table 5

Type and Frequency of the Strategies Used by the Readers

| STRATEGIES | GROUP | AÖ | BB | BeK | BK | GÇ | GG | İC | MÇ | NS | RP | TOTAL |
|--|-------|----|----|-----|----|----|----|----|----|----|----|-------|
| Analyzing expressions | T | - | - | 3 | - | - | - | - | - | - | - | 3 |
| Anticipating content | C | 1 | - | - | 1 | - | 1 | - | - | - | - | 3 |
| Asking and answering questions + | C | - | - | - | - | - | - | - | 1 | 1 | - | 2 |
| Commenting on behavior or process | C | - | - | - | - | - | - | - | 3 | 1 | - | 4 |
| Exemplifying | C | - | - | - | - | - | - | - | 2 | 5 | 3 | 10 |
| Guessing meaning + | C | 2 | - | 1 | - | 1 | - | - | - | 1 | - | 5 |
| Identifying reference words + | T | - | - | 1 | - | - | - | 1 | - | - | - | 2 |
| Integrating information | C | - | - | - | - | 1 | 1 | - | 2 | - | - | 4 |
| Interpreting text | C | 4 | 1 | - | 1 | 7 | 2 | 3 | 2 | 7 | 2 | 29 |
| Monitoring comprehension | C | 2 | - | 3 | 1 | 1 | - | 1 | 1 | 1 | - | 10 |
| Questioning information in text | C | 1 | - | 1 | 1 | - | - | - | 2 | - | - | 5 |
| Questioning meaning of a sentence | T | - | - | - | - | - | - | - | - | - | 1 | 1 |
| Questioning meaning of a word | T | 1 | 2 | 1 | - | - | 1 | 1 | 1 | 1 | 2 | 10 |
| Paraphrasing | T | - | - | - | - | 2 | 1 | - | - | 2 | 2 | 7 |
| Personalizing + | C | - | - | 1 | 1 | - | 1 | - | 1 | - | 1 | 5 |
| Reacting to information in text | C | 1 | - | 2 | 1 | - | - | - | 1 | 2 | - | 7 |
| Reacting to linguistic features + | T | - | - | 2 | - | - | - | - | 1 | 1 | - | 4 |
| Recognizing text structure | C | - | - | - | - | - | - | - | 1 | 2 | - | 3 |
| Rereading | T | 4 | 10 | 7 | 5 | 4 | 3 | 6 | 3 | 4 | 3 | 49 |
| Rereading the whole text + | T | - | - | - | - | - | - | - | 1 | - | - | 1 |
| Solving vocabulary problem | T | - | 5 | 3 | - | 2 | 2 | - | 1 | 4 | - | 17 |
| Summarizing + | C | 1 | - | - | - | - | - | - | - | 1 | - | 2 |
| Translating | T | - | 8 | 1 | - | - | - | - | - | 3 | 4 | 16 |
| Using general knowledge & associations | C | 1 | 1 | 5 | 1 | 1 | - | 1 | 5 | 5 | 3 | 23 |

Note: Plus (+) indicates the strategies found as a result of the data analysis and added to the predetermined category list. T = Text-based strategy group. C = Content-based strategy group.

The table indicates that there are differences in the frequency of the use of both groups of strategies -- content-based (C) and text-based (T). Though the number of content-based strategies used was found to be higher (14) than the number of text-based strategies (10), the latter group of strategies occurred with higher frequency (T = 128 as opposed to C = 112).

Interviews

All subjects' metacognitive knowledge -- self-knowledge, task knowledge, strategy knowledge -- and metacognitive control -- planning, monitoring, revising -- were analyzed within the framework of six categories. Further, subject responses to the interview questions were segmented into subcategories in light of the main categories of metacognitive knowledge and control presented in the predetermined categories. In brief, the categories and subcategories were developed on the basis of interview questions as well as the predetermined categories of metacognitive knowledge and control (see Tables 2 and 3).

Metacognitive Knowledge

The tables below, that is to say, Self-Knowledge, Task Knowledge and Strategy Knowledge, present the results of the analysis of the data on metacognitive knowledge. Uppercase letters stand for related statements, that is to say, responses to the interview questions as shown as interview focus. Small letters indicate the subcategories.

Table 6 indicates self-knowledge, that is to say, the first category metacognitive knowledge. The subjects' conceptions of themselves as readers were shown in subcategories and related statements.

Table 6

Self-KnowledgeInterview focus:

- progress in reading English texts
- self-conception of oneself as a reader
- self-conception of oneself as a better reader

Self-knowledge: Conception of oneself as a reader

| SUBJECTS | SUBCATEGORIES AND RELATED STATEMENTS |
|----------|--|
| AÖ | <p>-no progress in reading English texts</p> <p>-critical reader</p> <p>I CRITICIZE A LOT WHEN I'M READING. I CRITICIZE BOTH THE WRITERS IDEAS AND THE ORGANIZATION.</p> <p>-reader who has technical vocabulary and reads longer texts</p> <p>IF I HAD MUCH VOCABULARY I WOULD READ SCIENCE MAGAZINES... FURTHERMORE WE PROCEED FROM SHORT STORIES TO NOVELS. THIS I BELIEVE CAN IMPROVE OUR READING ABILITY.</p> |
| BB | <p>-progress towards fluent top-down reading</p> <p>I DIDN'T USE TO READ FLUENTLY. NOW I'M ABLE TO DERIVE THE MEANING FROM THE WHOLE EVEN IF THERE ARE WORDS THAT I DON'T KNOW.</p> <p>-curious reader who can be much overwhelmed</p> <p>I'M A CURIOUS READER. I DON'T UNDERSTAND MYSELF WHEN I'M OVERWHELMED BY WHAT I READ. I'M USUALLY IMPRESSED QUITE A LOT.</p> <p>-non-satisfying reader who reads a lot</p> <p>I'D LIKE TO READ ENGLISH TEXTS ON ANY SUBJECT, NOVELS, MAGAZINES.</p> |
| BeK | <p>-unconscious progress in reading English texts</p> <p>WE USUALLY LEARN UNCONSCIOUSLY... NOW WHEN I HAVE A LOOK AT UNIVERSITY EXAM QUESTIONS AGAIN I FIND THEM QUITE EASY.</p> <p>-careless reader</p> <p>IF I'M NOT OVERWHELMED BY WHAT I READ I CAN FORGET THE MEANING OF A WORD THAT I'VE JUST LOOKED UP.</p> <p>-reader who reads a lot</p> <p>I'D LIKE TO BE A READER WHO READS A LOT... BOTH ENGLISH AND TURKISH.</p> |
| BK | <p>-progress in reading English texts</p> <p>ABSOLUTELY YES</p> <p>-curious reader who likes reading</p> <p>I LIKE READING MUCH. I TRY TO READ AND UNDERSTAND EVEN WHEN I DON'T UNDERSTAND... I'M CURIOUS ABOUT ANYTHING.</p> <p>-reader who has much vocabulary and background knowledge</p> <p>IT WOULD BE BETTER IF I HAD MUCH MORE VOCABULARY... I WOULD BE A BETTER READER IF I WERE A THIRD- OR FOURTH-YEAR STUDENT... I UNDERSTAND FASTER AS I GET OLDER.</p> |
| GÇ | <p>-progress in reading and interpreting texts</p> <p>I HAVE IMPROVED IN READING TEXTS. WE WOULD READ AND INTERPRET SHORT STORIES WHEN I WAS IN HIGH SCHOOL. BUT THIS TIME IT'S COMPLETELY DIFFERENT... THIS MAY BE BECAUSE WE READ NUMEROUS SHORT STORIES OR BECAUSE OF OUR KNOWLEDGE OF LITERATURE... NOW I</p> |

CAN LOOK AT FROM DIFFERENT POINTS OF VIEW.

-top-down reader

PARAGRAPHS RATHER THAN SENTENCES ATTRACT MY ATTENTION. I THINK THAT I CAN GET THE MESSAGE FROM THE WHOLE. AT THAT MOMENT I TRUST MYSELF AND I INTERPRET THAT PARAGRAPH AS I THINK OF IT TO BE. BUT THIS CAUSES CARELESSNESS. THEREFORE I'M NOT A GOOD READER.

-knowledgeable reader who is proficient in language and can interpret well

A GOOD READER MUST INTERPRET WHAT S/HE READS WELL... IN ORDER TO UNDERSTAND WELL S/HE HAS TO KNOW ABOUT THE TOPIC AND ALSO BE PROFICIENT IN LANGUAGE.

GG

-progress in reading long texts

I DIDN'T READ LONG TEXTS. I STARTED READING THEM AT THE UNIVERSITY. IF I COULD UNDERSTAND THEM THIS IS BECAUSE I'VE MADE PROGRESS.

-conscientious reader

WHEN I'M OVERWHELMED BY WHAT I READ I DO MY BEST TO UNDERSTAND.

-conscious reader

READING, BUT NOT FOR THE SAKE OF READING SOMETHING. YOU SHOULD BE AWARE OF WHAT YOU READ.

IC

-progress in reading English texts

YES.

-not a careful reader who is incapable of guessing

I'M NOT A CAREFUL READER. I REREAD QUITE OFTEN. I CANNOT GUESS. I TRY TO LEARN WORDS BY LOOKING THEM UP IN A DICTIONARY.

-knowledgeable reader who is good at grammar and likes reading

I'D LIKE TO BE KNOWLEDGEABLE... IF YOU'RE INTERESTED IN THE TOPIC YOU UNDERSTAND BETTER... YOU SHOULD ALSO KNOW GRAMMAR RULES WELL BUT ONE SHOULD LIKE READING ABOVE ALL.

MC

-progress in reading English texts

YES SURE.

-curious but careless reader who reads to learn from

I'M A CURIOUS READER. I READ TO LEARN. BESIDES I'M A LITTLE CARELESS READER. I SOMETIMES DON'T SEE OR SKIP IMPORTANT PARTS... SINCE I READ IN ORDER TO LEARN FROM I SPARE TIME TO READ.

-eager reader who has a purpose to read

IN MY OPINION A GOOD READER MUST FIRST OF ALL HAVE A PURPOSE TO READ. S/HE HAS TO KNOW THE WRITER'S PURPOSE. S/HE HAS TO TRY TO GET THE WRITER'S MESSAGE. S/HE HAS TO READ TO MEET HER/HIS EXPECTATIONS.

NS

-progress at freshmen level

I DON'T THINK THE PREP PROGRAM WAS USEFUL TO ME LAST YEAR... I DON'T SEE ANY DIFFERENCE BETWEEN THOSE WHO ATTENDED THE PREP CLASSES AND THOSE WHO DIDN'T... BUT I BELIEVE THAT I'VE MADE IMPROVEMENT SINCE THE BEGINNING OF THIS YEAR.

-careful reader

I'M A KIND OF READER WHO IS CAREFUL ABOUT DETAILS. EVEN WHEN READING A NEWSPAPER I FIRST GO THROUGH IT READ THE TITLES AND THEN READ SOME PARTS IN DETAIL.

-reader who reads a lot

WE NEED TO READ MUCH MORE. IT'S NOT DIFFICULT TO READ TURKISH WRITERS BUT IT IS DIFFICULT TO UNDERSTAND SAY RUSSIAN WRITERS.

RP

-progress in reading English texts

SURE. FOR EXAMPLE I USED TO HAVE DIFFICULTY IN ANSWERING PARAGRAPH QUESTIONS. NOW I CAN FIND THE RIGHT ANSWER EVEN IF

I KNOW NOTHING ABOUT THE TOPIC.
 -not a good reader
 I'M NOT A GOOD READER. I FAILED IN READING FOR INSTANCE... I BELIEVED THAT I WOULD PASS. THERE IS SOMETHING WRONG BUT I DON'T KNOW.
 -proficient reader who can guess well and is good at grammar
 A READER WHO CAN MAKE MEANING OUT OF THE EXPRESSIONS THOUGH S/HE DOESN'T KNOW THE WORDS IS A GOOD READER... S/HE CAN EASILY UNDERSTAND THE SENTENCE STRUCTURE AND GET THE MESSAGE QUICKLY.

Note: Interview focus: related interview questions that helped constitute the subcategories, which were shown with hyphens. AÖ, BB, BeK, BK, GÇ, GG, İC, MÇ, NS, RP = subject initials. Three dots (...): irrelevant segments that were extracted.

As the table shows, all the subjects were able to describe themselves as readers. Thus, different reader profiles arose as a result of the analysis. Their ability to talk about themselves as readers shows self-knowledge, one of the categories of metacognitive knowledge.

Furthermore, all of the subjects stated their progress in reading English texts either in a negative or a positive sense. They generally associated this progress with what kind of readers they were in their responses to the interview questions.

Table 7 shows task knowledge, which was analyzed in terms of text difficulty. The table includes the subcategories derived as a result of the analysis of the interview data in light of one interview question.

Table 7

Task Knowledge

Interview focus:

- Factors that make reading a text difficult to understand

Task knowledge: Perceptions about text difficulty

| SUBJECTS | SUBCATEGORIES |
|----------|---|
| AÖ | -vocabulary -lack of background knowledge |
| BB | -lack of background knowledge -cultural differences -vocabulary -idiomatic language -complicated sentences |
| BeK | -long, complicated sentences -vocabulary -writer's language |
| BK | -lack of background knowledge -vocabulary -inability to guess |
| GÇ | -writer's language -vocabulary -figures of speech -differences in interpretation at different times of reading |
| GG | -vocabulary -long complicated sentences -punctuation |
| İC | -vocabulary -complicated sentences -lack of background knowledge -lack of interest in the topic |
| MÇ | -writer's language -literary language full of figures of speech -old vocabulary words -background knowledge |
| NS | -insufficient reading -lack of background knowledge |
| RP | -complicated sentences -vocabulary |

Note: Interview focus: related interview question that helped constitute the subcategories, which were shown with hyphens. AÖ, BB, BeK, BK, GÇ, GG, İC, MÇ, NS, RP = subject initials.

Subjects' knowledge of tasks were analyzed in terms of text difficulty. All subjects stated similar responses to the question of the role of text in reading for understanding. As is seen in the table, most subcategories deal with linguistic features or writer' language as regards text difficulty. Again subjects stated lack of background knowledge or insufficient reading as the source of difficulty in understanding. Furthermore, a few reported that literary language can make texts difficult to understand. In brief, most statements indicated linguistic difficulty in understanding texts.

Table 8 below presents the data on strategy knowledge, the last category of metacognitive knowledge. Similarly the table includes the subcategories and related statements.

Table 8

Strategy Knowledge

Interview focus:

- Use of any special techniques in reading English texts
 - Satisfaction with the techniques
 - The techniques that were used while reading, *Why Study Grammar?*
-

| | |
|--------------------|---|
| Strategy knowledge | Decisions about what techniques would be appropriate for a particular reader studying a particular text |
|--------------------|---|

SUBJECTS

SUBCATEGORIES AND RELATED STATEMENTS

- | | |
|----|---|
| AÖ | -rereading, analyzing expressions, integrating information, guessing word meaning, using dictionary after reading the text -satisfaction with available strategies -while reading <i>Why Study Grammar?</i> I THOUGHT WHILE I WAS READING NOT AFTER I READ. I DIDN'T TRANSLATE THE SENTENCES... I READ ONE OR TWO SENTENCES TWO TIMES. I TRIED TO GUESS THE MEANINGS OF WORDS THAT I DON'T KNOW. |
| BB | -highlighting important points as well as newly learnt idioms and expressions, taking notes of the words and expressions that are learnt, exemplifying difficult concepts, using background knowledge -satisfaction with available strategies THEY ALWAYS MADE ME BECOME SUCCESSFUL. -while reading <i>Why Study Grammar?</i> THE WRITER GAVE THE EXAMPLE OF A CAR. I IMAGINED IT. THEN I UNDERSTOOD BETTER. I LOOKED UP THE DICTIONARY. I READ THE PARTS |

THAT I DIDN'T UNDERSTAND ONCE MORE. BEFORE I STARTED TO READ THE PASSAGE I READ THE TITLE AND I THOUGHT WHAT IT COULD BE ABOUT.

- BeK -skimming, identifying unknown words and looking them up in a dictionary, guessing word meanings
 -strategies work when concentrated on what is read
 -while reading *Why Study Grammar?*
 I LOOKED UP THE WORDS THAT I DON'T KNOW. IF IT WAS A LONG SENTENCE I DIVIDED IT INTO TWO. FOR INSTANCE IF IT WAS AN 'IF' SENTENCE I READ AND TRIED TO UNDERSTAND THE 'IF' PART FIRST OF ALL. AFTER THAT I READ THE REST. I DIDN'T GUESS THE MEANINGS OF THE WORDS.
- BK -rereading
 -while reading *Why Study Grammar?*
 I PAID ATTENTION TO THE SUBJECTS. I SEARCHED FOR THE VERBS IN A SENTENCE. I TRANSLATED SOME PARTS. I TRIED TO MAKE A LINK BETWEEN SUBJECTS AND VERBS.
- GÇ -integrating information
 -satisfaction with available strategies(not sufficient when the text is extraordinarily difficult)
 -while reading *Why Study Grammar?*
 I DIDN'T UNDERSTAND THE SENTENCE 'Because it's there' COMPLETELY. BUT AS I WENT ON READING NEXT SENTENCES I STARTED TO MAKE MEANING. SENTENCES MAKE A WHOLE TOGETHER. A PARAGRAPH IS MORE IMPORTANT THAN A SENTENCE FOR ME. THE PARAGRAPHS ARE SIMILAR TO EACH OTHER IN THIS PASSAGE. I WAS ALSO FAMILIAR WITH THE TOPIC.
- GG -rereading, underlining
 -satisfaction with available strategies
 -while reading *Why Study Grammar?*
 I DIDN'T UNDERSTAND SOME SENTENCES. I TRIED TO UNDERSTAND THEM WITHOUT USING A DICTIONARY. I TRIED TO MAKE A LINK WITH THE PREVIOUS SENTENCE... BESIDES I DIVIDED LONG SENTENCES INTO PARTS. I TRIED TO UNDERSTAND THEM THIS WAY.
- IC -rereading, guessing meaning, analyzing expressions, concentrating on verbs.
 -dissatisfaction with available strategies
 -while reading *Why Study Grammar?*
 I DIDN'T SKIM THROUGH THE TEXT. I TRIED TO GUESS THE MEANINGS OF THE WORDS. SOMETIMES I LOOKED UP THE DICTIONARY.
- MÇ -imagining, using background knowledge, identifying with the protagonist, comparing writer's views with own ideas, guessing word meanings, looking up dictionary after reading the passage, applying to other sources for help, rereading, self-questioning
 -satisfaction with available strategies
 -while reading *Why Study Grammar?*
 FIRST I READ THE TITLE. I MADE SOME MEANING IN MY MIND. I ASKED MYSELF QUESTIONS ALL THE TIME. I TRIED TO COMPARE THE IDEAS WITH MY OWN...I AGREED OR DISAGREED. I TRIED TO GIVE EXAMPLES FROM MY OWN LIFE OR GENERAL KNOWLEDGE AT THE POINTS WHERE I AGREED. I QUESTIONED SOME BASIC VIEWS... I READ THE PARTS THAT I DIDN'T UNDERSTAND AGAIN. I TRIED TO GUESS THE MEANINGS OF THE WORDS THAT I DIDN'T KNOW. I CHECKED WHETHER MY PREDICTION WAS CORRECT, IF NOT, I LOOKED UP THE DICTIONARY... I THOUGHT WHAT CONTRIBUTION '-` MADE TO THE MEANING OF THE SENTENCE.

- NS -skimming, concentrating on words at second reading, looking up
key words, guessing less important words, rereading
-satisfaction with available strategies
-while reading *Why Study Grammar?*
I READ THIS TEXT ONCE... YOU CAN UNDERSTAND THE CONTENT. I TRIED
TO UNDERSTAND THE SENTENCES THAT I DIDN'T UNDERSTAND BY THINKING
ABOUT THE PREVIOUS AND THE COMING SENTENCES. I INTERPRETED.
- RP -integrating information, skimming, guessing word meanings,
interpreting
CONCENTRATING ON SENTENCES ONE BY ONE DOESN'T WORK MUCH. IT'S A
WASTE OF TIME. I BELIEVE THAT I UNDERSTAND BETTER WHEN I READ
FAST.
-satisfaction with available strategies
-while reading *Why Study Grammar?*
I READ THIS PASSAGE ONCE. I TRIED TO RELATE SENTENCES WITH EACH
OTHER... FOR INSTANCE I HAD READ A BOOK ABOUT TURKISH LANGUAGE.
WHILE I WAS READING THIS TEXT, I REMEMBERED THAT BOOK.

Note: 'Techniques': 'strategies'. Interview focus: related interview questions that helped constitute the subcategories, which were shown with hyphens. AÖ, BB, BeK, BK, GÇ, GG, İC, MÇ, NS, RP = subject initials. Three dots (...): irrelevant segments that were extracted.

As can be seen from the table, most subjects reported a number of strategies that they use while reading to understand texts. They also could talk about the strategies at hand, that is to say, the strategies that they employed while reading the text, *Why Study Grammar?* In accordance with discussion of content- and text-based strategies, most of the subjects reported these two groups of strategies, either generally or the particular strategies that they employed in the TAPs.

An important result was found in the second interview focus, that is to say, satisfaction with the available strategies. Almost all of the responses were short and provided inadequate information. This may indicate the subjects' lack of conscious knowledge of strategies. Although they talked about numerous strategies, they displayed little awareness of them in terms of whether they are effective.

Metacognitive Control

As regards strategy regulation, metacognitive control refers to taking strategic action to plan, monitor, and revise one's own

strategies when needed. The results revealed that the subjects displayed control of strategies less than knowledge about them. The tables below - Planning, Monitoring and Revising -- present control of strategies in three main categories. They include related statements, that is, responses to interview questions, and subcategories developed according to the predetermined categories and related interview questions. Small letters refer to subcategories; related statements are written in capital letters.

Table 9 shows the first category of metacognitive control. In light of the definition of the category and one related interview question, planning was presented below in subcategories and related statements.

Table 9

Planning

Interview focus:

- Use of any special techniques in reading English texts
-

Planning: Determining or accepting a purpose for reading, and initial selection of appropriate strategies

| SUBJECTS | SUBCATEGORIES AND RELATED STATEMENTS |
|----------|--|
| AÖ | - |
| BB | -initial selection of appropriate strategies: activating background knowledge FOR INSTANCE WHILE I WAS READING THIS TEXT (Why Study Grammar) WHAT I'VE LEARNT BEFORE ABOUT THIS TOPIC CAME TO MY MIND. |
| BeK | -initial selection of appropriate strategies: skimming I GO THROUGH THE PASSAGE FIRST. |
| BK | - |
| GÇ | - |
| GG | - |
| İc | - |
| MÇ | -initial selection of appropriate strategies: purpose-setting, |

previewing, predicting, hypothesizing, self-questioning
 I FIRST READ THE TITLE AND TRY TO UNDERSTAND THE CONTENT OF THE
 PASSAGE... I ALWAYS START READING A BOOK OR A PASSAGE ALREADY
 HAVING AN IDEA.

NS -initial selection of appropriate strategies: skimming
 I FIRST GO THROUGH WHAT I'M READING.

RP -initial selection of appropriate strategies: skimming

Note: Interview focus: related interview question that helped constitute the subcategories, which were shown with hyphens. AÖ, BB, BeK, BK, GÇ, GG, İC, MÇ, NS, RP = subject initials. Three dots (...): irrelevant segments extracted.

The first category of metacognitive control, planning, was found to be the least indicated among the other categories. This means that subjects do not prepare for a reading task. That is to say, they are not involved in initial planning before they start reading. Only four subjects reported strategies that indicate planning for a reading task. One interesting result arising from the analysis is that the strategies employed before starting a reading task were found to fall into the content-based group of strategies.

Table 10 presents the second category of metacognitive control: monitoring. The definition of the category and five interview question helped to develop the subcategories.

Table 10

Monitoring

Interview focus:

- Whether or not understanding of what is read
 - Evidence
 - Reason when understanding does not occur
 - Whether or not understanding the text, "Why Study Grammar?"?
 - Reason if not understood
-

Monitoring: Ongoing executive control of mental processes, and evaluating to determine if the selected strategies are working and whether or not comprehension is occurring

SUBJECTS

SUBCATEGORIES AND RELATED STATEMENTS

-
- | | |
|-----|--|
| AÖ | -awareness of when comprehension occurs: forming an idea out of what is read WHEN I READ A SENTENCE AND IF I CAN FORM AN IDEA IN MY MIND THAT MEANS I UNDERSTAND WHAT I READ... FURTHERMORE IF I READ AN EXPLANATION TO A GRAMMAR RULE AND IF I CAN DO THE EXERCISES AFTERWARDS THAT MEANS I UNDERSTAND THE EXPLANATION... IN AN EXAM ANSWERING COMPREHENSION QUESTIONS SHOWS THAT I UNDERSTAND. -awareness of comprehension breakdowns I KNOW WHAT IS TAUGHT TO ME, WHAT I'VE LEARNT AND WHY I DON'T UNDERSTAND. -identification of errors in understanding WHEN OTHERS UNDERSTAND AND I CANNOT UNDERSTAND I THINK THAT THIS IS BECAUSE I DON'T STUDY SUFFICIENTLY AND BECAUSE OF LACK OF KNOWLEDGE. -strategy to regulate comprehension processes: summarizing |
| BB | -awareness of when comprehension occurs: criticizing FOR EXAMPLE I ASK MYSELF WHY DID THE CHARACTER BEHAVE LIKE THAT. I THINK THAT I WOULD BEHAVE THIS WAY IF I WERE IN HIS PLACE. -identification of errors in understanding SOMETIMES I CONDITION MYSELF NOT TO UNDERSTAND... I DON'T UNDERSTAND IF THERE ARE TOO MANY WORDS THAT I DON'T KNOW... ALSO IF I'M NOT INTERESTED IN THE TOPIC, IF IT IS ABOUT SCIENCE FOR INSTANCE, I MAY NOT UNDERSTAND WHAT I READ. -while reading <i>Why Study Grammar?</i> I FOUND SENTENCES COMPLICATED... VOCABULARY WAS DIFFICULT. |
| BeK | -awareness of when comprehension occurs: answering questions, activating background knowledge IF THERE ARE QUESTIONS TO WHAT I'VE READ AND IF I CAN ANSWER THEM I THINK THAT I UNDERSTOOD 40% OR 50% OF IT... FOR EXAMPLE IF I READ ABOUT THE SAME TOPIC IN NEWSWEEK, I CAN SAY THAT "AH! I HAD READ ABOUT THIS SOMEWHERE ELSE," AND THIS MORE OR LESS SHOWS THAT I HAVE UNDERSTOOD WHAT I READ PREVIOUSLY. -identification of errors in understanding LACK OF VOCABULARY... AND GRAMMAR DEFICIENCIES... IT CAN BE BECAUSE OF MY PSYCHOLOGICAL STATE AT THAT MOMENT... CARELESSNESS, |

- TIREDFNESS. THESE CAN BE A REASON... BUT IT COULD LARGELY BE BECAUSE OF THE DIFFICULTY OF THE TEXT.
- while reading *Why Study Grammar?*
I COULDN'T CONCENTRATE ON IT... IF I HAD READ IT FOR THE SECOND TIME, I COULD HAVE UNDERSTOOD IT BETTER... IT COULD BE BECAUSE I'M CONFUSED. I'M THINKING OF FINAL EXAMS FOR INSTANCE.
- strategy to regulate comprehension processes: self-questioning
I ASK MYSELF SAYING "I'VE STUDIED ENGLISH FOR ALL THOSE YEARS. WHY DON'T I UNDERSTAND? WHAT IS THE PROBLEM?"... I USUALLY SEARCH FOR THE PROBLEM FIRST IN MYSELF.
- BB -strategy to regulate comprehension processes: backtracking, rereading, self-questioning
IF I DON'T UNDERSTAND A SENTENCE I'M NOT SUPPOSED TO UNDERSTAND THE COMING SENTENCE. SOMETIMES I GO BACK AND SEE THAT I'VE UNDERSTOOD.
- identification of errors in understanding
I HAVE A GREAT PROBLEM WITH VOCABULARY.
- GÇ -awareness of when comprehension occurs: exam results, commenting on what is read
I LOOK AT EXAM RESULTS AND SEE THAT I UNDERSTOOD... IF I CAN TALK ABOUT WHAT I'VE READ OR ARGUE WITH MY FRIEND ABOUT IT I SEE WHETHER I'VE UNDERSTOOD OR NOT.
- identification of errors in understanding
DUE TO THE WRITER'S LANGUAGE I MAY NOT UNDERSTAND COMPLETELY... FURTHERMORE, THE FACT THAT I COULDN'T CONCENTRATE, OR I COULDN'T SPARE TIME, AND SOMETIMES I DIDN'T MAKE EFFORT... I DON'T THINK I'M GOOD AT GRAMMAR... IF I DON'T UNDERSTAND THOUGH I SPEND ENOUGH TIME, I THINK THAT IT IS DUE TO GRAMMAR DEFICIENCIES... SOMETIMES I MAY INTERPRET WHAT I READ INCORRECTLY... I DON'T USUALLY UNDERSTAND WHAT I HAVE TO MEMORIZE.
- while reading *Why Study Grammar?*
I UNDERSTOOD THE WHOLE BUT I SKIPPED SOME SENTENCES, PERHAPS BECAUSE OF GRAMMAR OR WORDS. I COULDN'T GRASP FOR INSTANCE turn out.
- GG -awareness of when comprehension occurs: confirming answers with those of others
WHEN THE TEACHER ASKS A QUESTION IN THE CLASSROOM, I DON'T USUALLY ANSWER. I LISTEN TO ANSWERS. AND I COMPARE MY ANSWER WITH THE TEACHER'S. THEN I SAY TO MYSELF THAT I HAVE PREDICTED CORRECTLY.
- identification of errors in understanding
IT DEPENDS ON HOW DIFFICULT THE TEXT IS...SOME WORDS ARE EASY TO GUESS, SOME ARE DIFFICULT. IF THERE ARE TOO MANY WORDS THAT I DON'T KNOW AND IF THOSE WORDS BLOCK MY UNDERSTANDING... MY PSYCHOLOGICAL STATE... I MAY NOT UNDERSTAND DUE TO VOCABULARY...
- İC -awareness of when comprehension occurs: being confident about the meaning, confirming ideas with those of others, forming a complete idea in mind
- identification of errors in understanding
VOCABULARY SOMETIMES CREATES PROBLEMS. AND IF I'M NOT GOOD AT GRAMMAR...
- while reading *Why Study Grammar?*
VOCABULARY CAUSED SOME PROBLEMS IN UNDERSTANDING.
- MÇ -awareness of when comprehension occurs: ability to predict, curiosity, getting the writer's message, interpreting, retention

WHEN YOU'RE READING A STORY YOU CAN ANTICIPATE FURTHER EVENTS. THIS SHOWS I THINK THAT I'VE UNDERSTOOD. YOU GET THE WRITER'S MESSAGE. THIS SHOWS YOU UNDERSTAND... MY CURIOSITY IS AROUSED, THINKING WHAT WILL HAPPEN NEXT... WHEN IT IS FINISHED YOU REMEMBER ALL THE EVENTS VIVIDLY AND INTERPRET THEM.

-identification of errors in understanding
PSYCHOLOGICAL STATE IS VERY IMPORTANT... SOMETIMES THE LANGUAGE OF THE TEXT MAKES IT DIFFICULT TO UNDERSTAND... MEANWHILE I QUESTION MYSELF AS A READER... TECHNIQUES ARE SOMETIMES IMPORTANT. THE SAME TECHNIQUE MAY NOT BE APPLIED TO EVERYTHING...

-while reading *Why Study Grammar?*
SOME WORDS OR EXPRESSIONS MAY HAVE IDIOMATIC MEANINGS. I DIDN'T UNDERSTAND FOR INSTANCE as with mountains...INVERTED SENTENCES MAY SOMETIMES BLOCK UNDERSTANDING.

-strategy to regulate comprehension processes: self-questioning
I OFTEN ASK MYSELF WHETHER I UNDERSTAND WHAT I'M READING.

- NS -awareness of when comprehension occurs: being confident about the meaning, confirming with others
IF I FEEL THAT I'VE UNDERSTOOD, I DON'T THINK THAT THERE IS SOMETHING WRONG... IF I THINK THAT I'VE UNDERSTOOD AN ASSIGNMENT, THEN WHEN WE DO IT IN THE CLASSROOM, I SEE THAT IT IS TRUE.
- identification of errors in understanding
PSYCHOLOGICAL STATE... IF I WANT TO GO OUT I CANNOT READ... FURTHERMORE IF THERE IS LACK OF KNOWLEDGE, AND I'M BAD AT GRAMMAR, IT BECOMES DIFFICULT TO UNDERSTAND... GENERAL KNOWLEDGE IS VERY IMPORTANT. GENERAL KNOWLEDGE MAY SOMETIMES BECOME ENOUGH TO UNDERSTAND IT... WHAT KIND OF A READER I AM IS IMPORTANT. IF I'M A CARELESS READER I DON'T UNDERSTAND COMPLETELY... THE TECHNIQUES ARE ALSO IMPORTANT.
- while reading *Why Study Grammar?*
VOCABULARY. I COULDN'T CONCENTRATE OR I DIDN'T READ CAREFULLY. I HURRIED UP A LITTLE BIT.

- RP -awareness of when comprehension occurs: forming an idea in mind, communicating what is learnt
IF I CAN SAY THAT I'VE LEARNT THIS, AND IF I CAN TELL OTHERS ABOUT IT, THAT MEANS I'VE UNDERSTOOD.
- identification of errors in understanding
CONCENTRATION... I HAVE DIFFICULTY IN UNDERSTANDING SINCE I HAVE GRAMMAR DEFICIENCIES... FURTHERMORE I FEEL THAT THERE IS SOMETHING WRONG WITH THE TECHNIQUES I USE. I DON'T KNOW MUCH ABOUT READING TECHNIQUES...
- while reading *Why Study Grammar?*
VOCABULARY WAS DIFFICULT. I DIDN'T HAVE MUCH DIFFICULTY IN THE STRUCTURES OF SENTENCES.

Note: Interview focus: related interview questions that helped constitute the subcategories, which were shown with hyphens. AÖ, BB, BeK, BK, GÇ, GG, İC, MÇ, NS, RP = subject initials. Three dots (...): irrelevant segments that were extracted.

Monitoring was found to be quite high when compared to planning and revising. The subjects stated both awareness of when comprehension occurs and does not occur, and also the actions that they performed to

monitor comprehension. They also were able to assess whether they understood the text they read and stated the reason for understanding or not.

Most of the subjects stated whether or not they understand what they read. In other words, they stated that they are aware of when comprehension occurs. Similarly, all of them were found to have awareness of comprehension difficulties. That is to say, they were able to identify errors in understanding. This awareness indicates their monitoring ability, however not in terms of evaluating to determine if selected strategies are working. In brief, the subjects displayed ability to monitor their comprehension processes without using strategy knowledge. This again shows that they lack conscious strategy knowledge.

Table 11 shows revising, the last category of metacognitive control. The table includes the subcategories and related statements in tandem with the definition of the category and two interview questions that were shown as interview focus.

Table 11

Revising

Interview focus:

- Action performed when understanding does not occur
- Action performed when understanding did not occur while reading, "Why Study Grammar?"

Revising: Modifying or employing strategies to correct comprehension failures

| SUBJECTS | SUBCATEGORIES AND RELATED STATEMENTS |
|----------|---|
| AÖ | <p>-fix-up strategies: using dictionary, analyzing expressions, making predictions, rereading, integrating information</p> <p>-while reading <i>Why Study Grammar?</i> I DIDN'T UNDERSTAND A SENTENCE (We encounter...). I SKIPPED AND READ THE NEXT SENTENCE. THEN I REALIZED THAT THE EXPRESSIONS IN THE PREVIOUS SENTENCE (e.g., ambiguity) WERE THE PROBLEMS.</p> |
| BB | <p>-fix-up strategies: rereading, underlining, guessing meaning from context</p> <p>-while reading <i>Why Study Grammar?</i> I DIDN'T UNDERSTAND THE SENTENCE And the differences.... THEN I TRIED TO GET THE MEANING FROM THE WHOLE IN THE PARAGRAPH. I LOOKED AT THE WORDS THAT I DIDN'T UNDERSTAND AGAIN.</p> |
| BeK | <p>-fix-up strategies: rereading, using dictionary, stopping to relax to resume reading</p> <p>-while reading <i>Why Study Grammar?</i> I READ THE PARAGRAPH AGAIN. AND I LOOKED UP THE DICTIONARY.</p> |
| BB | <p>-fix-up strategies: using dictionary, stopping reading to resume later on, guessing meaning from context</p> <p>-while reading <i>Why Study Grammar?</i> I SKIPPED. I WENT BACK TO READ AGAIN... I TRIED TO GUESS THE MEANING FROM THE CONTEXT.</p> |
| GÇ | <p>-fix-up strategies: rereading, integrating information, using dictionary to become sure of the meaning of a word</p> <p>-while reading <i>Why Study Grammar?</i> THERE WERE SOME SENTENCES THAT I DIDN'T UNDERSTAND. WHAT DID I DO? I LOOKED AT THE COMING SENTENCES AND TRIED TO SUPPORT THE MEANING.</p> |
| GG | <p>-fix-up strategies: stopping to resume later on, asking for somebody's help, applying to other sources</p> <p>-while reading <i>Why Study Grammar?</i> FOR EXAMPLE, I DIDN'T UNDERSTAND THIS SENTENCE To understand the linguistic... I READ IT AGAIN. IT DIDN'T WORK. THEN I GAVE IT UP AND WENT ON READING. SOMEWHERE IT TALKED ABOUT THE FACT THAT GRAMMAR IS THE FUNDAMENTAL FEATURE OF LANGUAGE. THEN I THOUGHT THAT PROBLEMATIC SENTENCE WAS ABOUT THE IMPORTANCE OF GRAMMAR. IN ANOTHER SENTENCE THERE WAS THE IDEA THAT WE CANNOT LIVE</p> |

WITHOUT LANGUAGE... I DIDN'T CONCENTRATE ON THAT SENTENCE ONLY.

- İC -fix-up strategies: using dictionary, applying to other sources, rereading
IF I DON'T UNDERSTAND A PASSAGE AND IF IT IS BECAUSE OF THE GRAMMAR, I LOOK AT A GRAMMAR BOOK. IF I DON'T STILL UNDERSTAND, BY LOOKING AT THE TITLE OF THE PASSAGE, I GO THROUGH ENCYCLOPEDIAS OR OTHER BOOKS.
-while reading *Why Study Grammar?*
I DIDN'T UNDERSTAND THIS SENTENCE It is especially critical... I READ IT ONCE MORE. BUT STILL I DIDN'T UNDERSTAND. THEN I SKIPPED.
- MÇ -fix-up strategies: rereading, stopping to resume at a better time, ask for others' opinions,
-while reading *Why Study Grammar?*
I READ SOME PARTS MORE THAN ONCE. I WENT ON READING. I TRIED TO EXCLUDE THE PROBLEMATIC SENTENCE AND THOUGHT WHETHER THE MEANING WOULD CHANGE... AS I UNDERSTOOD WHAT IT WAS ABOUT I ANTICIPATED FURTHER DETAILS.
- NS -fix-up strategies: stopping to resume some time later, relaxing and conditioning oneself, interpreting, integrating information
I TRY TO FORGET THAT I DIDN'T UNDERSTAND... I READ THINKING THAT I DON'T HAVE TO UNDERSTAND.
-while reading *Why Study Grammar?*
THERE WERE SOME PARTS THAT I DIDN'T UNDERSTAND. BUT THIS IS BECAUSE OF ME, NOT THE TEXT. I DIDN'T FORCE MYSELF WHEN I DIDN'T UNDERSTAND. I TRIED TO INTERPRET THAT SENTENCE. I THOUGHT ABOUT THE PREVIOUS SENTENCE. I READ THE NEXT SENTENCE AND TRIED TO MAKE A LINK.
- RP -fix-up strategies: stopping to resume, self-questioning, rereading
-while reading *Why Study Grammar?*
I READ SOME SENTENCES AGAIN.

Note: Interview focus: related interview questions that helped constitute the subcategories, which were shown with hyphens. AÖ, BB, BeK, BK, GÇ, GG, İC, MÇ, NS, RP = subject initials. Three dots (...): irrelevant segments that were extracted.

Revising covers strategies to be applied when comprehension does not occur. In this respect, the subjects reported some fix-up strategies that they usually use as well as those that they employed while reading the assigned text. These strategies varied between text-based and content-based group of strategies.

The strategies below were identified from the categories of strategy knowledge, planning and revising in an attempt to clarify the information about the subjects' knowledge about and control of their

strategies. Table 12 presents these strategies together with their definitions.

Table 12

Strategies Identified from the Categories of Strategy Knowledge,

Planning and Revising

| STRATEGY | DEFINITION |
|----------------------------------|---|
| Activating background knowledge | Stimulating prior knowledge about the topic by such activities as examining text captions or pictures |
| Applying to other sources | Using other sources such as encyclopedias or related books to help oneself understand what is read |
| Asking for others' help | Getting additional explanation or verification from the teacher or other expert |
| Clarifying | Making a portion of text easier to understand by continuing reading |
| Focusing on verbs | Paying attention to verbs to get the meaning of a clause or sentence |
| Focusing on words | Paying attention to vocabulary to get the meaning of a sentence or a portion of text |
| Highlighting | Using a variety of emphasis techniques such as underlining, starring, or color-coding to focus on important information in text |
| Hypothesizing | Forming an idea as to the content of a passage, proving and/or disproving formulated hypothesis as one reads |
| Identifying with the protagonist | Sympathizing with the main character in a narrative, i.e., short story or novel |
| Imagining | Using mental pictures to clarify concepts |
| Note-taking | Writing down the main idea or specific points |

| | |
|--------------------------------|---|
| Self-questioning | Questioning oneself to determine whether goals are being achieved, i.e., to check whether comprehension is occurring or to assess how well the task has been accomplished |
| Setting goals | Setting aims for a reading task as a planning activity |
| Skimming | Going through the text to have a general idea |
| Stopping for a while to resume | Stopping reading a text and continuing to read some time later |

As it is apparent from the table, most of the strategies identified in the interview data, that is to say, categories of strategy knowledge, planning and revising, are content-based strategies. That is to say, the subjects reported that they rely largely on content-based strategies. However, the table also contains strategies such as 'asking for others' help', 'stopping for a while to resume,' which cannot be classified as content- or text-based strategies.

In conclusion, it was found through the TAPs that all of the subjects were using reading comprehension strategies as assumed at the beginning of the study. Similarly, all of them displayed knowledge about and control of the strategies in varying amounts, which did not necessarily mean conscious knowledge and control, that is, metacognitive knowledge and control.

CHAPTER 5 CONCLUSION

In this chapter, firstly, an overview of the study is presented. The second section discusses the findings of the study with reference to specific examples. Next, the limitations of the study are presented in terms of population type and difficulties in interpreting the findings. In the following section, pedagogical implications are suggested. In the final section, implications for further research are given.

Overview of the Study

This study aimed to investigate freshman students' metacognitive knowledge and control in the use of reading comprehension strategies. Data were collected through think-aloud protocols (TAPs) and interviews. Students' reading comprehension strategies were identified through TAPs. The strategies identified were coded according to a coding scheme and categories of strategies were developed. The frequency of the strategies was computed in an attempt to find out which group of strategies -- content-based or text-based -- are used more frequently.

Interviews were held to explore students' metacognitive knowledge and control. Predetermined categories of metacognitive knowledge and control were identified in the transcribed text and coded in light of the interview questions. Subcategories of the main categories of metacognitive knowledge -- self-knowledge, task knowledge, strategy knowledge -- and of metacognitive control -- planning, monitoring, revising -- were developed.

Discussion of the Results

In this section, the results of the study are discussed according to the order of analysis procedures. First, the findings of the analysis of the think-aloud data and second, the results of the analysis of the interview data are discussed.

Conclusions Drawn from the Analysis of the Think-Aloud Data

As a result of the analysis of the think-aloud data, it was found that the subjects use numerous strategies while reading texts. In other words, they employ many strategies while they process texts. The results of the study in terms of categories of strategies developed are supported by the findings of Block (1986), who investigated comprehension strategies of second language learners.

The two groups of strategies that the subjects verbalized in the TAPs were content- and text-based strategy types. Although they employed content-based strategies more than those of text-based, the frequency of the latter was found to be higher. The fact that the number of content-based strategies was higher suggests that the subjects rely more on top-down processing of texts. On the other hand, the high frequency of text-based strategies seems to support the idea that the subjects employ fewer strategies, which means that they are involved in bottom-up processing of texts, but use them more frequently.

The high number of content-based strategies and the high frequency of text-based strategies seem to be contradictory. One possible reason may be that the subjects did not read a literary text, which is considered to prompt the use of content-based strategies more frequently. Another reason might be that the text used in the TAPs was difficult to process; hence the subjects employed text-based strategies more often to comprehend the content of the text. In other words, the linguistic features of the text may have forced the subjects to use text-based strategies to help them decode the meaning.

Conclusions Drawn from the Analysis of the Interview Data

The findings of the study obtained from the analysis of the interview data seem to support the conclusions made by some researchers such as Abromitis (1994), Paris (1991) and Persson (1994), who explored the importance of metacognition in reading comprehension. The results

of this study indicate that the subjects displayed knowledge and control in their use of reading comprehension strategies in varying amounts. They were able to talk about their strategies in general and also about those that they reported in the TAPs with respect to what kind of readers they are and the role of text difficulty in comprehension, such as writer's language, vocabulary, long, complicated sentences. The subjects also exhibited control over their strategies. Some of the subjects reported strategies that show they plan for their reading tasks. Almost all of the subjects identified failures in comprehension. Most of them reported that they employ fix-up strategies when they do not understand.

When the amount of knowledge about strategies is compared to that of control of strategies, it can be said that the subjects have more knowledge than control over their strategies since control requires action in the use of strategies.

Among the categories of metacognitive control, planning was found to be the least employed by the readers, which means that they do not usually prepare themselves before they start reading. Although background knowledge is essential in the cognitive processing of texts, subjects were found not to make effective use of their background knowledge. That is to say, the subjects do not usually use strategies that activate their background knowledge. In brief, they do not plan for reading through such strategies as previewing and goal setting. It can thus be concluded that they often confront comprehension breakdowns in reading.

However, the findings of the study reveal that the subjects almost always have ongoing executive control over their mental processes. That is to say, they monitor to evaluate whether or not comprehension is occurring. Although most of them identified linguistic problems and improper psychological state or lack of concentration that cause errors in understanding texts, they were found not to be aware of the role of

strategies in comprehending texts. Most of the comprehension errors that they experience, as they reported in the interviews, stem from other sources than lack of strategy use.

As for revising, it can be said that the subjects employ fix-up strategies, either content- or text-based. However, they also rely on such strategies as 'stopping for a while to resume' and 'asking for others' help', which may suggest that they yield to comprehension breakdowns.

The results of the analysis of the interviews indicate that the subjects possess knowledge and control in the use of strategies, however without conscious awareness and ability to regulate them. Putting it differently, they lack specific knowledge about and intentional control over strategies, although they could talk about how they read texts, why they do not understand, and what they do when they do not understand. As it is apparent from the statement made by one subject, who said that she does not know about techniques and this causes her failure in the reading course, that the subjects have surface knowledge about the strategies they use, and seem to control them unconsciously. Although the same subject reported numerous strategies in the TAPs and talked about them in the interviews, she does not have conscious knowledge and control over the strategies.

The conclusion that students possess unconscious knowledge about and control of strategies is supported by Metcalfe and Shimamura (1994), who argue that human beings can learn without conscious awareness (see Chapter 2, section on Metacognition, for the quote). Thus, it can be concluded that students use strategies to construct the meaning in the text. They can talk about these strategies and regulate them to avoid and/or correct comprehension failures. However, this does not necessarily mean that they have metacognitive knowledge and control. It can be implied from the results that they are not familiar with what functions strategies have or how strategies help the reader in reading

texts. They do not know specifically about the variety of strategies, and/or do not regulate them consciously, that is to say, they do not, for example, exhibit planned actions to select appropriate strategies when needed.

In conclusion, the findings obtained from the analyses of both the think-aloud and interview data indicate that the subjects use various content-based strategies. The variety of content-based strategies supports the conclusion that the subjects have acquired or developed the kind of strategies that help them read literary texts and accomplish reading tasks regarding texts from both American and English Literature. The number of content-based strategies identified in the TAPs increased with the ones that the subjects reported in the interviews. Although the text used in the TAPs was not a literary text, the subjects reported in the interviews, which were held immediately after the TAPs, the kind of strategies that can be applied to reading literature. Strategies such as 'imagining' and 'identifying with the protagonist' relate primarily to reading literary texts. In addition, the subjects reported more content-based strategies, which were identified within the categories of strategy-knowledge, planning, and revising (see Table 12).

It was found in the study that there is not a considerable discrepancy in the use of content- and text-based strategies, which suggests that the subjects are involved in both top-down and bottom-up processing of texts. The findings also indicate that students do not have metacognitive knowledge about and control of their reading comprehension strategies.

To have an overview of the findings of the study, the results are summarized in light of the research questions. The first research question addressed the reading comprehension strategies used by the freshman students at Ankara University. Students' strategies were found through the TAPs; the summary of the results are as follows:

- Students in the Faculty of Letters at Ankara University, as represented by ten subjects, use numerous strategies while reading texts.
- There is not much difference in the use of content-based and text-based strategies. That is to say, students are involved in bottom-up and top-down processing when they read texts.

The second research question aimed to investigate students' knowledge about and control of how they read texts to make meaning, that is, their reading comprehension strategies. The findings are summarized as follows:

- Students have varying amounts of knowledge about strategies in the sense that they are able to talk about their strategies, regarding what kind of readers they are and what makes reading a text difficult to understand.
- Students have varying amounts of control over their strategies in the sense that they plan before they begin to read a text, monitor their comprehension to assess whether they are understanding and revise their comprehension when they are not understanding.
- Students have less control of than knowledge about strategies.
- Students lack conscious knowledge about and control of strategies; that is, they do not have specific knowledge about and intentional control over their reading comprehension strategies. Thus, they do not possess metacognitive knowledge and control.

Limitations of the Study

This study is limited to a certain group of students, that is, freshman level students. The subjects could have been chosen from other levels in order to find out whether the results would be different.

Yet another limitation is related to the difficulties in the interpretation of the interview results. Since the categories of

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Yet another limitation is related to the difficulties in the interpretation of the interview results. Since the categories of

metacognitive knowledge and control overlap, that is, the categories are all interrelated, some difficulties arose in the description and the interpretation of the interview results.

Implications for Future Research

The present study explored metacognitive knowledge and control in the use of reading comprehension strategies. Further research may focus on the effects of metacognitive knowledge and control in enhancing reading comprehension. To do this, firstly, students' metacognitive knowledge and control in reading ability can be identified. Then, the two groups of students can be tested with a reading comprehension test to measure the effects of metacognitive knowledge and control on reading comprehension.

Investigating the relationship between students' metacognition and their academic achievement can be recommended as another research focus. If a positive relationship between students' metacognition and academic achievement is found, the students can be trained through metacognitive thinking ability. Such a study can test the hypothesis that students who are taught this ability are more successful than those who are not.

Lastly, a comparison of the performance of good and poor readers in terms of metacognition can be recommended as a further research study. Instructional programs can be initiated based on the identification of poor reading ability.

Pedagogical Implications

In an attempt to familiarize students with strategies and with efficient use of them, think-aloud protocols might provide teachers with an effective, useful and flexible technique for finding out what strategies students use. To do this, both the teachers and the students need to be trained. Such an activity can be designed to cover more than one class time. Through think-aloud protocols, students' reading

strategies can be identified. Students then become aware of their own strategies after a class discussion on them.

How much students know about and how much control they have over the strategies can be detected in the classroom through a class discussion or by asking them to write about strategies. Students already use strategies to understand what they read. What counts, however, is whether students are conscious of the strategies that they use, and whether they can regulate their strategies to block and/or correct comprehension failures. For instance, it was found in the study that the students lack planning activities although some students could talk about them. Since strategies such as setting a goal for reading and/or activating background knowledge positively contribute to reading comprehension, lack of knowledge of these strategies and ability to control them may result in serious comprehension failures. Thus, defects in planning activities can be identified in the classroom.

The effectiveness of revising activities is a controversial issue. It is open to discussion whether stopping reading for a while to resume later on corrects comprehension breakdowns, or whether students might use more effective strategies if they knew about and had control over them. It would be a useful activity to find out what fix-up strategies students are employing when they think they do not understand.

Once deficiencies in metacognitive knowledge and control have been identified, a metacognitive strategy training program can be initiated in the classroom. Students can be trained through metacognitive strategies to improve their reading abilities. In addition, students can be taught how to take responsibility for their reading behavior through metacognitive strategy instruction.

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Appendix A
Text Used in the Warm-up

POLITICAL ENGLISH

The language of politicians, especially when they are speaking in public, is an interesting mixture of old and new: it displays much of the ritual of the phraseology and consciousness of precedent which we associate with religion or law; and it makes use of the many of the rhetorical and dramatic techniques which we associate with advertising or the media. It is a variety which is much abused. One of society's great paradoxes is that we elect to power people whose language we readily say we do not believe.

...

The notion of 'confrontation' is probably the key. When two people of different political persuasions confront each other, there is more at stake than grasping the immediate meaning of the words they use. There are questions of identity: does the language conform to that used in the policy statements in their party? There are questions of personal consistency: does the language say the same thing as it did on the previous occasion that the speaker addressed the subject? There are questions of credibility: do the claims made by the language live up to the actions which the speaker has undertaken?

...

Appendix B
Text Used in the Think-Aloud Protocols

WHY STUDY GRAMMAR?

'Because it's there'. People are constantly curious about the world in which they live, and wish to understand it and (as with mountains) master it. Grammar is no different from any other domain of knowledge in this respect.

But more than mountains, language is involved with almost everything we do as human beings. We cannot live without language. To understand the linguistic dimension of our existence would be no mean achievement. And grammar is the fundamental organizing principle of language.

Our grammatical ability is extraordinary. It is probably the most creative ability we have. There is no limit to what we can say or write, yet all of this potential is controlled by a finite number of rules. How is this done?

Nonetheless, our language can let us down. We encounter ambiguity, imprecision, and unintelligible speech or writing. To deal with these problems, we need to put grammar under the microscope, and work out what went wrong. This is especially critical when children are learning to emulate the standards used by educated adult members of their community.

Learning about English grammar provides a basis for learning other languages. Much of the apparatus we need to study English turns out to be of general usefulness. Other languages have clauses, tenses, and adjectives too. And the differences they display will be all the clearer if we have first grasped what is unique to our mother tongue.

After studying grammar, we should be more alert to the strength, flexibility, and variety of our language, and thus be in a better position to use it and to evaluate others' use of it. Whether our own usage in fact improves, as a result, is less predictable. Our awareness must improve, but turning that awareness into better practice — by speaking and writing more effectively — requires an additional set of skills. Even after a course on car mechanics, we can still drive carelessly.

Appendix C
Readability Statistics of the text, *Political English*

Counts:

| | |
|------------|-----|
| Words | 191 |
| Characters | 942 |
| Paragraphs | 4 |
| Sentences | 8 |

Averages:

| | |
|-------------------------|------|
| Sentences per Paragraph | 2.0 |
| Words per Sentence | 23.9 |
| Characters per Word | 4.8 |

Readability:

| | |
|----------------------------|------|
| Passive Sentences | 12% |
| Flesch Reading Ease | 58.0 |
| Flesch-Kincaid Grade Level | 8.3 |
| Coleman-Liau Grade Level | 21.2 |
| Bormuth Grade Level | 11.1 |

Appendix D

Readability Statistics of the text, *Why Study Grammar?*

Counts:

| | |
|------------|-------|
| Words | 319 |
| Characters | 1.606 |
| Paragraphs | 7 |
| Sentences | 23 |

Averages:

| | |
|-------------------------|------|
| Sentences per Paragraph | 3.3 |
| Words per Sentence | 13.9 |
| Characters per Word | 4.9 |

Readability:

| | |
|----------------------------|------|
| Passive Sentences | 13% |
| Flesch Reading Ease | 55.3 |
| Flesch-Kincaid Grade Level | 9.0 |
| Coleman-Liau Grade Level | 11.1 |
| Bormuth Grade Level | 9.8 |

Appendix E
Warm-up Session Talk

In this study, I am interested in how students read texts. What do they do to understand a passage? Take for example an exam situation. You have to read a text to understand and learn the material before you take the exam. Or you are going to do an assignment on a subject. So you have to read the text and understand it in order to be able to do the assignment. Similarly, what I would like you to do is to read the text that I am going to give you and try to understand it as much as possible. I am not going to assess your understanding; what I am interested in is how you read it. So don't worry about it. While you are reading it I will ask you to think aloud. That is, tell me whatever comes to your mind. I do not want you to interpret what you are saying. Imagine yourself alone talking to yourself. If you forget to verbalize what you are thinking, I will remind you to talk. To remind you that you will tell me everything that that goes in on your mind, I have put a dot in red at the end of each sentence. So remember to say what you are thinking at the end of each sentence.

Use Turkish or English, whichever you feel comfortable with.

Now, you will watch me model this technique for you. After that you will perform it yourself with a different passage.

Turkish Version

Bu çalışmada, öğrencilerin metinleri nasıl okuduğu konusuyla ilgileniyorum. Bir parçayı anlamak için ne yaparsınız? Bir sınav durumunu düşünün. Sınavdan önce bir metni okuyup anlamak ve konuyu anlamak zorundasınız. Ya da bir konuyla ilgili bir ödev hazırlamak durumundasınız. Ödevi yapabilmeniz için metni okuyup anlamak zorundasınız. Aynı şekilde sizden, vereceğim metni okumanızı ve mümkün olduğu kadar çok anlamaya çalışmanızı istiyorum. Anlayıp anlamadığınızı değerlendirmeyeceğim; nasıl okuduğunuza bakacağım. Bu yüzden endişelenmeyin. Metni okurken sizden sesli düşünmenizi isteyeceğim. Yani aklınıza gelen herşeyi söyleyin. Söylediklerinizi yorumlamanızı istemiyorum. Kendinizi, tek başınıza kendi kendinizle konuştuğunuzu düşleyin. Eğer aklınıza gelenleri unutursanız, size bunu hatırlatacağım. Aklınıza gelenleri söylemezi size hatırlatmak için, metnin içinde her cümlenin sonuna bir kırmızı nokta konmuştur. Her cümlenin sonunda aklınızdan geçenleri lütfen söyleyin.

Türkçe ya da İngilizce, hangisiyle daha rahat hissediyorsanız onu kullanın.

Şimdi bu tekniği ben uygulayacağım, beni izleyin. Ardından vereceğim bir başka metinle aynı tekniği uygulamanızı isteyeceğim.

Appendix F
Interview Questions

A. Questions about metacognitive knowledge of strategies.

1. Do you use any special techniques that you find useful in reading texts?
2. Are you satisfied with the techniques you use when you are reading a text?
3. What do you think of the techniques you applied when you were reading the text "Why Study Grammar?"
4. What do you think makes reading a text difficult to understand?

B. Questions about students' conceptions about themselves as readers.

1. Do you think you have made progress in reading English texts since you started university?
2. How would you describe yourself as a reader?
3. What would you like to do better as reader?

C. Questions about the awareness of whether or not comprehension is occurring.

1. Do you usually understand what you read?
2. How do you know?
3. What do you think the reason usually is if you do not understand?
4. Is it because of what kind of a reader you are or of the techniques you use, or of the type of text you do not understand?
5. Do you think you understood the text "Why Study Grammar?"
6. If you did not understand, what do you think the reason was?

D. Questions about the ability to apply fix-up strategies if comprehension does not work.

1. What do you do if you do not understand what you read?
2. Was there anything special you did at the point where you thought you did not understand the text "Why Study Grammar?"
3. Did it work?

Appendix G
Transcription Conventions for Think-Aloud Protocols

1. The text portions were typed in normal lower/uppercase and think-aloud were typed in capital letters.
2. Pauses more than 15 seconds were illustrated with two dots (..).
3. Utterances like HMM, UMM, HAH were included in think-aloud segments.
4. When the verbalization contains words or portions from the text, they were typed in small letters.

Appendix H
Sample Think-Aloud Protocol
(Turkish Version)

Why Study Grammar? (1) BU KONU SANKI, HANI GRAMER ÇALIŞMAK SIKICIDIR YA, MOTİVE ETMEK İÇİN YAZILMIŞ GİBİ GELDİ BANA. 'Because it's there'. People are constantly curious about the world in which they live, and wish to understand it and (as with mountains) master it. Grammar is no different from any other domain of knowledge in this respect. (2) DEDİĞİM GİBİ, BİLMEYİZ GEREKEN BİR ŞEY İNSANLARIN GRAMERE MERAKLI OLMASI, BEN PEK BİR BAĞLANTI KURAMADIM. BELKİ DİĞER ŞEYLERDEN AYIRMAMAK GEREKTİĞİNİ DÜŞÜNÜYORUM. GRAMERİ DE EKSİK ETMEMİZ GEREKİYOR. But more than mountains, language is involved with almost everything we do as human beings. (3) DİLLE İNSAN İLİŞKİSİ, YANI İNSANIN KENDİSİNİ İFADE ETME İSTEĞİ. We cannot live without language. (4) TAMAM DİL OLMADAN YAŞAYAMAYIZ. And grammar is the fundamental organizing principle of language. (5) TAMAM, GRAMER DİLİN TEMELİ. Our grammatical ability is extraordinary. (6) ability, BELKİ ÖĞRENME DEĞİL DE, GELİŞTİRME GİBİ GELDİ BANA. BU PARAGRAF İNSANLARIN DİLİ GELİŞTİRMEK İSTEMESİNİ ANLATIYOR. It is probably the most creative ability we have. (7) BUNUN BİZİM EN BÜYÜK YETENEĞİMİZ OLMASI. There is no limit to what we can say or write, yet all of this potential is controlled by a finite number of rules. How is this done? (8) DİLİ SINIRLAYACAK OLAN NE? BU NASIL YAPILIYOR SORUSU BANA BUNU HATIRLATTI. BU PARAGRAFTA BUNU ANLATIYOR. We encounter ambiguity, imprecision, and unintelligible speech or writing. (9) BUNU ANLAMADIM. To deal with these problems, we need to put grammar under the microscope, and work out what went wrong. (10) YANLIŞ GİDEN BİR ŞEYLER VAR MI. This is especially critical when children are learning to emulate the standards used by educated adults members of their community. (11) ÇOCUKLARIN BÜYÜKLERDEN ETKİLENMESİNİ ANLATIYOR. O ANDA KAPIYORLAR, YANLIŞ OLSUN DOĞRU OLSUN. O YÜZDEN DOĞRU OLMASI ÇOK ÖNEMLİ ETRAFINDAKİ İNSANLARIN. Learning about English grammar provides a basis for learning other languages. (12) DEDİĞİNDE, SANIRIM BURDA BAHSETTİĞİ, İNGİLİZCE YAZARIN ANA DİLİ. BAZEN KENDİ DİLİNİN GRAMERİNİ İYİ BİLMEK DİĞERLERİNİ ÖĞRENMEYİ KOLAYLAŞTIRIR. Much of the apparatus we need to study English turns out to be of general usefulness. (13) BURADA DA KENDİ ANA DİLİNİN GRAMERİNDEN BAHSEDİYOR. KULLANMADA RAHATLIKTAN BAHSEDİYOR. And the differences they display will be all the clearer if we have first grasped what is unique to our mother tongue. (14) DİLİ DAHA RAHAT KULLANABİLİRİZ. After studying grammar, we should be more

alert to the strength, flexibility and variety of our language, and thus be in a better position to use it and to evaluate others' use of it. Whether our own usage in fact improves, as a result, is less predictable. (15) predictable'IN BURADAKİ ANLAMINI ÇÖZEMEDİM. Our awareness must improve, but turning that awareness into better practice - by speaking and writing more effectively - requires an additional set of skills. (16) PRATİK DİLİ KULLANMADA ETKİLEYİCİ BİR UNSUR. Even after a course on car mechanics, we can still drive carelessly. (17) AHA! BURADAKİ ÖRNEK ÇOK GÜZEL. BİLDİĞİNİZ BİR ŞEYİ DAHA RAHAT KULLANIYORSUNUZ.

Translated Segments of Sample Think-Aloud Protocol

In English

- (1) GRAMMAR IS BORING MOST OF THE TIME. IT SEEMS TO ME THAT THIS PASSAGE WAS WRITTEN TO MOTIVATE TO STUDY.
- (2) AS I SAID, WHAT WE HAVE TO KNOW IS THAT PEOPLE ARE CURIOUS ABOUT GRAMMAR, I COULDN'T UNDERSTAND HOW IT IS RELATED. I THINK WE SHOULDN'T SEPARATE IT FROM OTHER THINGS. WE SHOULDN'T IGNORE GRAMMAR.
- (3) THE RELATIONSHIP BETWEEN LANGUAGE AND MAN. THAT IS, THE WILL THAT MAN WANTS TO EXPRESS HIMSELF.
- (4) OKAY, WE CANNOT LIVE WITHOUT LANGUAGE.
- (5) GRAMMAR IS THE FOUNDATION OF LANGUAGE.
- (6) IT SEEMS TO ME THAT IT IS NOT LEARNING BUT IMPROVING. THIS PARAGRAPH SAYS THAT PEOPLE WANT TO IMPROVE THEIR LANGUAGE.
- (7) IT IS BEING OUR GREATEST ABILITY.
- (8) WHAT IS IT THAT LIMITS LANGUAGE? THE QUESTION OF HOW IT IS DONE REMINDS ME OF THIS. HE IS TALKING ABOUT THIS IN THIS PARAGRAPH.
- (9) I DIDN'T UNDERSTAND THIS.
- (10) IS THERE SOMETHING GOING WRONG?
- (11) HE IS TALKING ABOUT THAT CHILDREN ARE INFLUENCED BY ADULTS. THEY IMMEDIATELY ACQUIRE, WHETHER IT IS WRONG OR RIGHT. THEREFORE, IT IS VERY IMPORTANT TO HAVE RIGHT MODELS AROUND CHILDREN.
- (12) I THINK WHAT THE WRITER IS TALKING ABOUT HERE IS HIS MOTHER TONGUE. SOMETIMES KNOWING THE GRAMMAR OF YOUR MOTHER TONGUE FACILITATES LEARNING OTHERS.
- (13) HE IS TALKING ABOUT THE GRAMMAR OF HIS MOTHER TONGUE HERE. HE IS TALKING ABOUT THE PRACTICALITY OF LANGUAGE USE.

(14) WE CAN USE LANGUAGE PRACTICALLY.

(15) I COULDN'T WORK OUT THE MEANING OF PREDICTABLE HERE.

(16) PRACTICE IS AN IMPORTANT FACTOR THAT AFFECTS LANGUAGE USAGE.

(17) AHA! THIS EXAMPLE IS CUTE. YOU USE SOMETHING YOU KNOW
PRACTICALLY.

Appendix I
Strategy Profile Charts for All of the Subjects

AÖ

| STRATEGY | SAMPLE |
|---------------------------------|---|
| Anticipating content | Why Study Grammar? GRAMMAR IS BORING MOST OF THE TIME. IT SEEMS TO ME THAT THIS PASSAGE WAS WRITTEN TO MOTIVATE TO STUDY. |
| Guessing meaning | ability IT SEEMS TO ME THAT IT IS NOT LEARNING BUT IMPROVING |
| Interpreting text | "Learning about..."SOMETIMES KNOWING THE GRAMMAR OF YOUR MOTHER TONGUE FACILITATES LEARNING OTHERS |
| Monitoring comprehension | "People are curious..." I COULDN'T UNDERSTAND HOW IT IS RELATED |
| Questioning information in text | WHAT IS IT THAT LIMITS LANGUAGE? THE QUESTION OF How is this done? REMINDS ME OF THIS. |
| Questioning meaning of a word | I COULDN'T WORK OUT THE MEANING OF predictable HERE. |
| Reacting to information in text | AHA! THIS EXAMPLE IS CUTE. |
| Rereading | But more than mountains... |
| Summarizing | THIS PARAGRAPH SAYS THAT PEOPLE WANT TO IMPROVE THEIR LANGUAGE. |
| Using background knowledge | PRACTICE IS AN IMPORTANT FACTOR THAT AFFECTS LANGUAGE USAGE |

BB

| STRATEGY | SAMPLE |
|-------------------------------|--|
| Interpreting text | "Even after..." WHAT I UNDERSTAND FROM THIS EXAMPLE IS THAT WE CAN SPEAK BETTER IF WE REPAIR OUR DEFICIENCIES IN GRAMMAR. |
| Questioning meaning of a word | WHAT DOES let down MEAN? |
| Rereading | Our awareness must improve... |
| Solving vocabulary problem | I NEED TO LOOK UP apparatus. |
| Translating | yet all of this potential is controlled by a finite number of rules. BU POTANSİYEL BİRÇOK KURALLARLA KONTROL EDİLEBİLİR. How is this done? BU NASIL YAPILIR? |
| Using background knowledge | WE WOULDN'T CARRY OUT OUR DEEDS IF THERE WAS NO LANGUAGE. |

BeK

| STRATEGY | SAMPLE |
|---------------------------------|--|
| Analyzing expressions | YES WHAT DO WE USUALLY DO After studying grammar? |
| Guessing meaning | "Because it's there." THIS I THINK TRIES TO EXPLAIN THAT GRAMMAR ALWAYS EXISTS. |
| Identifying reference words | WHAT DOES This REFER TO? HAH putting grammar under the microscope |
| Monitoring comprehension | (Rereading) "Our awareness must improve..." HIH HIH I UNDERSTAND IT NOW. |
| Personalizing | I CANNOT LEARN GERMAN GRAMMAR THOUGH I KNOW ENGLISH GRAMMAR. |
| Questioning in text | "Learning about..." I'M NOT SURE ABOUT IT. |
| Questioning meaning of a word | I DON'T UNDERSTAND THIS WORD. WHAT DOES ambiguity MEAN? |
| Reacting to information in text | (Reading the title) HMM THIS IS A NICE TOPIC. IN FACT, BECAUSE PEOPLE DON'T USUALLY KNOW WHY THEY STUDY GRAMMAR. |
| Reacting to linguistic features | I HATE SUCH SENTENCES. THEY ONLY CONFUSE PEOPLE'S MINDS. |
| Rereading | This is especially critical... |
| Solving vocabulary problem | I'D LIKE TO LEARN WHAT predictable MEANS. |
| Translating | Other languages have clauses, tenses, and adjectives too. DIĞER DİLLERDE DE CÜMLELER, ZAMANLAR VE SIFATLAR VAR. |
| Using background knowledge | IF WE DON'T CONTINUE STUDYING GRAMMAR WE FORGET IT. THEREFORE IT IS THIS KIND OF LESSON THAT REQUIRES STUDYING ALL THE TIME. |

BK

| STRATEGY | SAMPLE |
|---------------------------------|--|
| Anticipating content | Why Study Grammar? I THINK IT TALKS ABOUT HOW IMPORTANT GRAMMAR IS. |
| Interpreting text | "Learning about..." IF YOU KNOW ENGLISH YOU CAN EASILY LEARN OTHER LANGUAGES. |
| Monitoring comprehension | "To understand..." I DON'T UNDERSTAND THIS SENTENCE. |
| Personalizing | ONCE I TRIED LEARNING FRENCH JUST FOR FUN. BUT I FAILED. KNOWING ENGLISH DIDN'T WORK. |
| Questioning information in text | "Learning about..." IS IT ALWAYS SO? I DON'T KNOW. |
| Reacting to information in text | I MYSELF DON'T LIKE STUDYING GRAMMAR. |
| Rereading | To deal with these... |
| Using background knowledge | "...language is involved..." LANGUAGE IS PECULIAR TO HUMAN BEINGS ONLY. ANIMALS CANNOT SPEAK FOR INSTANCE. |

GC

| STRATEGY | SAMPLE |
|----------------------------|---|
| Guessing meaning | "This is especially..." I THINK IT SAYS CHILDREN ARE MUCH MORE TALENTED IN ACQUIRING LANGUAGE THAN ADULTS. |
| Integrating information | IF KNOWING ENGLISH GRAMMAR MAKES LEARNING OTHER LANGUAGES EASIER, Much of the apparatus we need to study English turns out to be of general usefulness. |
| Interpreting text | "Even after..." WE MAY KNOW THE FUNCTION OF EACH COMPONENT OF A CAR. BUT THIS DOES NOT MEAN THAT WE CAN DRIVE IT. WE NEED TO PRACTICE AS WELL. |
| Monitoring comprehension | "Even after..." THERE IS AN EXAMPLE HERE BUT I COULDN'T UNDERSTAND HOW IT IS RELATED. |
| Paraphrasing | "And the differences..." IF WE BECOME AWARE OF THE DIFFERENCES IN OUR MOTHER TONGUE, THEN WE CAN SEE THE DIFFERENCES BETWEEN OTHER LANGUAGES. |
| Rereading | After studying grammar... |
| Solving vocabulary problem | I NEED TO LOOK UP emulate. |
| Using background knowledge | WHEN LEARNING A SECOND LANGUAGE SMALL CHILDREN ARE MORE SUCCESSFUL. |

GG

| STRATEGY | SAMPLE |
|-------------------------------|---|
| Anticipating content | (Reading the title) I THINK IT TALKS ABOUT THE SIGNIFICANCE OF GRAMMAR IN LEARNING ENGLISH. |
| Integrating information | "We encounter ambiguity,..." HAH THESE let us down. "Nonetheless, our language..." |
| Interpreting text | "To deal with..." WE HAVE TO EXAMINE GRAMMAR TO FIND OUT THE PROBLEMS. |
| Paraphrasing | "Our grammatical..." OUR GRAMMATICAL ABILITY IS NOT USUAL. |
| Personalizing | I DON'T THINK I AM GOOD AT GRAMMAR. |
| Questioning meaning of a word | WHAT DOES domain MEAN? DOES IT MEAN FIELD? |
| Rereading | This is especially critical... |
| Solving vocabulary problem | I THINK I'LL LOOK UP apparatus. I DON'T REMEMBER WHAT IT MEANS. |

ic

| STRATEGY | SAMPLE |
|-------------------------------|---|
| Identifying reference words | ambiguity imprecision unintelligible "To deal with these problems..." THESE ARE PROBLEMS I THINK. |
| Interpreting text | "Learning about..." THIS MEANS ENGLISH GRAMMAR IS SO SIMILAR TO THE GRAMMARS OF OTHER LANGUAGES. |
| Monitoring comprehension | "Grammar is no different..." I COULDN'T UNDERSTAND THIS SENTENCE COMPLETELY. |
| Questioning meaning of a word | WHAT DO THESE WORDS MEAN? ambiguity imprecision unintelligible |
| Rereading | Even after a course... |
| Using background knowledge | "Other languages..." YES, OTHER LANGUAGES HAVE THEM. |

MC

| STRATEGY | SAMPLE |
|---------------------------------|--|
| Asking and answering questions | WHY DID THE WRITER GIVE THIS EXAMPLE? BECAUSE GRAMMAR IS SO IMPORTANT AND YOU HAVE TO BE VERY CAREFUL. GRAMMAR IS IMPORTANT FOR LEARNING ENGLISH. |
| Commenting on behavior | I'M THINKING OF WHAT CONTRIBUTION THE EXPRESSION BETWEEN THE TWO DASHES MAKES TO THE MEANING OF THE SENTENCE. I'M THINKING WHETHER MEANING WOULD CHANGE OTHERWISE. |
| Exemplifying | FOR EXAMPLE ENGLISH HAS SOME COMMON RULES WITH OTHER LANGUAGES. FOR EXAMPLE, SPANISH ITALIAN GERMAN FRENCH. |
| Integrating information | NEXT SENTENCE EXPLAINS WHAT I SAID. Much of the apparatus we need to study English turns out to be of general usefulness. |
| Interpreting text | "Nonetheless, our language..." GRAMMAR ALSO CAUSES MISUNDERSTANDINGS. |
| Monitoring comprehension | "Because it's there". I'VE JUST SEEN THIS SENTENCE. I DIDN'T REALIZE IT WHEN I'VE READ IT FOR THE FIRST TIME. |
| Personalizing | I AGREE. IF I LEARNT A LANGUAGE, I WOULD LEARN IT IN THE BEST WAY. I WOULD TRY TO UNDERSTAND THAT CULTURE. THE BEST PRONUNCIATION, THE WORDS, I LIKE LANGUAGES. FOR INSTANCE I WANT TO LEARN SCANDINAVIAN LANGUAGES VERY MUCH. |
| Questioning information | "Our grammatical ability..." I DON'T THINK IT'S extraordinary. |
| Questioning meaning of a word | WHAT DOES ambiguity MEAN? imprecision, unintelligible |
| Reacting to information in text | "Because it's..." WHAT THIS SENTENCE MEANS IS INTERESTING. |
| Reacting to linguistic features | WHAT IS THE FUNCTION OF DASH HERE? |
| Recognizing text structure | and as with mountains master it THERE IS AN IDIOM HERE. I DON'T UNDERSTAND IT. |

| | |
|-------------------------------|---|
| Rereading | And the differences... |
| Rereading the whole text | I'LL READ FROM THE TOP TO THE BOTTOM AGAIN. |
| Solving vocabulary problem | I THINK I'LL LOOK UP emulate. |
| Using background knowledge | THEY HAVE COMMON RULES FROM LATIN. THEY HAVE SIMILARITIES. |

NS

| STRATEGY | SAMPLE |
|---------------------------------|--|
| Asking and answering questions | (Reading the title) WHY DO WE STUDY GRAMMAR? WE STUDY GRAMMAR TO EXPRESS OURSELVES. |
| Commenting on behavior | I USUALLY UNDERSTAND BETTER WHEN I READ THE PREVIOUS OR THE NEXT SENTENCE. THUS I TRY TO GET THE GENERAL MEANING. |
| Exemplifying | "This is especially critical..." LET'S THINK OF A CHILD WHO COMES FROM AN EDUCATED FAMILY AND ONE FROM A RURAL FAMILY THERE IS FOR SURE GREAT DIFFERENCE BETWEEN THESE TWO CHILDREN. |
| Guessing meaning | "But more than mountains,..." PERHAPS MOUNTAIN HERE IS USED TO MEAN VOCABULARY KNOWLEDGE. |
| Interpreting text | "To deal with..." THIS MEANS WE SHOULD BE AWARE OF OUR WEAK POINTS IN GRAMMAR AND TRY TO IMPROVE THEM AND WE CAN DO THIS ONLY BY STUDYING CONTINUOUSLY. |
| Monitoring comprehension | I'VE LOOKED UP DOMAIN IN THE DICTIONARY, STILL I DON'T UNDERSTAND IT. |
| Paraphrasing | "People are constantly..." PEOPLE WONDER WHAT'S HAPPENING IN THE WORLD. |
| Questioning meaning of a word | domain of knowledge DOES IT MEAN AREA OF KNOWLEDGE? |
| Reacting to information in text | "And the differences..." IN FACT THE PROBLEM IS WITH OUR OWN LANGUAGE. I HATE THAT I DON'T KNOW TURKISH WELL. |
| Reacting to linguistic features | IT'S NOT A DIFFICULT PASSAGE BUT I HAVE PROBLEMS WITH THE WORDS. THIS IS I THINK BECAUSE MY VOCABULARY KNOWLEDGE IS LIMITED. |
| Recognizing text structure | "Even after a course..." THERE IS A METAPHOR HERE. |
| Rereading | Much of the apparatus... |
| Solving vocabulary problem | let down MEANS PUTTING SOME ONE IN A DIFFICULT SITUATION. |
| Summarizing | IT IS ON THE WHOLE ABOUT GRAMMAR AND LANGUAGE. IT EMPHASIZES THE IMPORTANCE OF GRAMMAR. |
| Translating | It is probably the most creative ability we have. BELKİ DE BU SAHİP OLDUĞUMUZ EN YARATICI |

YETENEK.

Using background
knowledge

THERE IS A DIFFERENCE BETWEEN WRITTEN LANGUAGE
AND SPOKEN LANGUAGE. GRAMMAR BECOMES MUCH MORE
IMPORTANT IN WRITTEN LANGUAGE. WHEN WE READ
SOMETHING WRITTEN WE HAVE TO BE GOOD AT GRAMMAR
IN ORDER TO UNDERSTAND.

RP

| STRATEGY | SAMPLE |
|---------------------------------|---|
| Exemplifying | "To deal with..." ISN'T IT SO IN REAL LIFE? WE THINK THOROUGHLY AND FIND OUT WHAT GOES WRONG IN OUR LIVES? |
| Interpreting text | "We cannot live..." OF COURSE WE CANNOT LIVE WITHOUT LANGUAGE. BUT WE SHOULD USE IT FLUENTLY AND ACCURATELY. WE CAN USE A SIMPLE LANGUAGE WITHOUT ANY FOREIGN WORDS. |
| Paraphrasing | "To deal with..." IN ORDER TO BE ABLE TO SOLVE THE PROBLEMS IT IS NECESSARY TO EXAMINE GRAMMAR IN DETAIL TO FIND OUT WHAT WENT WRONG. |
| Personalizing | Why Study Grammar I COULDN'T SOLVE THIS GRAMMAR PROBLEM. |
| Questioning meaning of a clause | "To understand..." WHAT DOES THIS SENTENCE MEAN HERE? our existence achievement |
| Questioning meaning of a word | WHAT DOES apparatus MEAN? LIKE APERITIF. |
| Rereading | Grammar is no different... |
| Translating | There is no limit to what we can say or write, yet all of this potential is controlled by a finite number of rules. SÖYLEDİĞİMİZ YA DA YAZDIKLARIMIZIN BİR LİMİTİ YOKTUR. BU POTANSİYEL KURALLAR TARAFINDAN KONTROL EDİLİYOR, |
| Using background knowledge | RULES HAVE TO EXIST. PEOPLE CANNOT DO WHATEVER THEY LIKE. |

Appendix J
Sample Interview

A.

1. TAM OLARAK BİR YÖNTEM DEĞİL ASLINDA AMA, BELKİ HERKESİN YAPTIĞI BİR ŞEY. OKURKEN CÜMLELER ARASINDAKİ BAĞLANTIYI KURMAYA ÇALIŞIYORUM. ANLAMADIĞIM BİR CÜMLEYİ ORADA BIRAKMADAN, ÖNCEKİ YA DA ARKASINDAN GELEN CÜMLEYE BAKIYORUM. BU TÜR BAĞLANTILARLA BİRAZ ANLAM NETLEŞİYOR. ANLAMAK DAHA DA KOLAYLAŞIYOR.
2. EVET AMA BAZEN YETERLİ OLMUYOR. BİLMEDİĞİM KELİMELEER GELMİŞ OLABİLİR, KARIŞIK CÜMLELER OLABİLİR, O ZAMAN SÖZLÜĞE BAKMAYA ÜŞENİYORUM GALİBA. BAZEN YAZARIN KULLANDIĞI İFADELER OLABİLİYOR. DEVRİK CÜMLELER MESELA. GENELDE MEMNUNUM BAŞARILI OLUYORUM.
3. Because it's there CÜMLESİNİ TAM OLARAK ANLAMADIM. AMA ARKASINDAN DİĞER CÜMLELERİ OKUMAYA BAŞLAYINCA AZ ÇOK BİRŞEYLER OLUŞMAYA BAŞLADI. CÜMLELER BİR ARADA BÜTÜN ZATEN. TEK BİR CÜMLE ÜZERİNDE DÜŞÜNÜRKEN, AYNI ZAMANDA PARAGRAF DAHA ÖNEMLİ OLUYOR BENİM İÇİN. BU PASAJDA PARAGRAFLAR GENELDE BİRBİRİNE BENZİYOR. KONUYA ÖNCEDEN DE BİRAZ AŞİNALIK VARDI ZANNEDERSEM.
4. KELİMELEER OLABİLİR AMA, KELİMELEERİN O KADAR ETKİLİ OLACAĞINI ZANNETMİYORUM. ÇÜNKÜ SÖZLÜĞE BAKABİLİYORUM. AMA YAZARIN KULLANMIŞ OLDUĞU SANATLAR OLABİLİR BENCE. BİR DE YORUMLAMA FARKLİLİĞİ VAR. TÜRKÇE OKURKEN BİLE, İKİNCİ OKUYUŞUMUZDA BİLE FARKLI ANLAMLAR ÇIKABİLİYOR. BİR DE İNGİLİZCE OLURSA, YAZARIN KULLANDIĞI DİL ÇOK ETKİLİ OLUYOR. BELKİ YAZARIN SÖYLEMEK İSTEDİĞİNİ, DOLAYLI ANLATIMLARDAN, SÜSLÜ ANLATIMLARDAN DOLAYI ANLAYAMAYABİLİYORUZ. BU DURUM ANLAMAYI DAHA DA ZORLAŞTIRIYOR SANIRIM, DİĞER FAKTÖRLERE ORANLA.

B.

1. EVET GELİŞTİ. BELKİ DAHA FAZLA HİKAYE OKUMAKTAN VEYA EDEBİYAT BİLGİSİNDEN DOLAYI. DAHA ÖNCE DE LİSEDE OKUYORDUK, YORUMLUYORDUK AMA, BURADA BAKIŞ AÇISI TAMAMİYLE FARKLI. BELKİ EDEBİYATI BİR BÜTÜN OLARAK İNCELEMeye BAŞLADIĞIMIZDAN. ÇOK FARKLI BAKIŞ AÇILARINDAN BAKABİLİYORUM.
2. DİKKATSİZ BİR OKUYUCUYUM HER ŞEYDEN ÖNCE. CÜMLELERDEN ÇOK PARAGRAF DİKKATİMİ ÇEKİYOR. BÜTÜNDE BİR ŞEYLER YAKALAYABİLECEĞİMİ DÜŞÜNÜYORUM. O ANDA KENDİME GÜVENİYORUM. BUNUN BÖYLE OLABİLECEĞİNİ DÜŞÜNÜP ONU ÖYLE YORUMLUYORUM. AMA BU DA DİKKATSİZLİĞE YOL AÇIYOR. O YÜZDEN İYİ BİR OKUYUCU DEĞİLİM.

3. YORUM YETENEĞİ İYİ OLAMALI BİR OKUYUCUNUN. GENEL KÜLTÜRLE BAĞLANTILI BELKİ, YORUM YETENEĞİNİN İYİ OLMASI GEREKİYOR. OKUDUĞUNU ANLAYABİLMEK İÇİN, HEM OKUDUĞU KONUYU BİRAZ BİLMESİ GEREKİR DİYE DÜŞÜNÜYORUM. HEM DE GRAMERİNİN VE DİLİNİN İYİ OLMASI GEREKİYOR.

C.

1. EVET ANLARIM AMA BİR BÜTÜN İÇİNDE ANLARIM. BAZEN YAŞADIĞIM BİR SORUN, BAZEN CÜMLELERİ YANLIŞ YORUMLAYABİLİYORUM. İŞTE BU DA SÖYLEDİĞİM GİBİ YAZARIN KULLANDIĞI DİLLE İLGİLİ, DOLAYLI YA DA SÜSLÜ BİR ANLATIM OLABİLİYOR. O ZAMAN TAM OLARAK ANLAYAMAYABİLİYORUM.
2. GENELDE BUNU YAPABİLİYORUM ZANNEDERSEM. BUNU DA SINAV SONUÇLARINA GÖRE SÖYLEYEBİLİYORUM. BİR SINAVDAN ÇIKINCA EĞER İÇİMDE TAM OLARAK NET BİR ŞEYLER YOKSA, O ZAMAN TAM OLARAK ANLAYAMADIĞIMI DÜŞÜNÜRÜM. SINAV SONUCUNA BAKIYORUM. BAZI ŞEYLER YERİNE OTURMUŞ. İŞTE O ZAMAN İPUÇLARINDAN FAYDALANMIŞ GİBİ OLUYORUM. OKURKEN ÖNCE SORULARA FALAN BAKARIM, ARKASINDAN TEXT'İ OKURUM. NEYİ ARADIĞIMI BİLİYORUM ZANNEDERSEM. AMA SINAVDAN SONRA İÇİMDE KUŞKU VARSA TAM OLARAK ANLADIĞIMI SÖYLEYEMEM. OKUDUĞUM ŞEY HAKKINDA KONUŞABİLİYORSAM, TARTIŞABİLİYORSAM, İŞTE O ZAMAN ANLADIĞIMI VEYA ANLAMADIĞIMI DAHA İYİ KAVRAYABİLİYORUM.
3. O ANDA YOĞUNLAŞAMAMIŞ OLMAK VEYA YETERLİ ZAMANI AYIRAMAMIŞ OLMAK. BİR PARÇAYI MESELA BİR DEFA OKUMUŞUMDUR. BÖYLECE BÜTÜNÜ YAKALAYAMAMIŞIMDIR. BUNUN SEBEBİ YETERLİ ZAMANI HARCAMAMAKTIR, ÜZERİNDE TAM OLARAK ÇALIŞMAMAK OLABİLİR. GRAMERLE ÇOK İÇİÇE OLDUĞUMU DÜŞÜNÜYORUM. BELKİ BU YÜZDEN DE OLABİLİR. ÇÜNKÜ HEPİMİZİN BİR GRAMER BİLGİSİ VAR DİYE DÜŞÜNÜYORUM. EĞER GEREKLİ ZAMANI AYIRIP DA YİNE ANLAMIYORSAM GRAMER EKSİKLİĞİMDEN KAYNAKLANDIĞINI DÜŞÜNÜRÜM. İLK OKUDUĞUMDA GRAMERE VE KELİMELERE DİKKAT ETMEMİŞ OLABİLİRİM AMA, İKİNCİ OKUYUŞUMDA EN AZINDAN BUNU DAHA NET ANLAYABİLMEM GEREKİR.
4. UÇU DE ETKİLİ. NASIL BİR OKUYUCUYUM BEN? DİKKATLİ BİR OKUYUCU OLABİLİRİM VEYA İLGİ GÖSTERMEYEN BİR OKUYUCU OLABİLİRİM. BİREYİN KİŞİLİĞİ ÖNEMLİ. ONUN DIŞINDA TEKNİKLER BİRAZ NASIL BİR OKUYUCU OLDUĞUNLA İLGİLİ. MESELA ÇOK FAZLA ZAMAN AYIRMAMIŞIMDIR. TEXTİN TÜRÜ DE ÖNEMLİ. BİLİMSEL BİR TEXT OLABİLİR MESELA, EĞER TAM OLARAK ANLAYABİLMEK İÇİN O KONUDA BİR ŞEY BİLMEK GEREKİR. BİLİMSEL BİR TEXTİ BEN OKUYUP O ALANDA ÇALIŞAN BİRİ KADAR İYİ YORUMLAYAMAM.
5. ASLINDA OKUDUĞUMU TAM OLARAK ANLAMAMAK GİBİ BİR ŞEY OLMADI. YANI EKSİK ANLAMIŞ OLABİLİRİM. O ANDA DAHA İYİ OLABİLİRDİ DİYE DÜŞÜNÜRÜM. BU EDEBİYAT İÇİN GENELDE GEÇERLİ. OKUDUĞUMU ANLADIĞIM HALDE, BAZEN BUNU FARKLI ŞEKİLDE YORUMLUYORUM GALİBA. MESELA BİR EDEBİ METİN

OKUDUK. BENİM ANLAMADIĞIM EZBER KONUSU VARDIR. DİYELİM Kİ HEM AŞK TEMASI HEM DE DÖNEMİN YAZARLARINI İNCELİYORUZ "OUTLINE" DERSİNDE. AŞK TEMASINI İŞLEMİŞİM SINAVDA. YAZARLARIN BELKİ BİR ÇOĞUNUN İSMİNİ VERMEDİM, BEKLEDİĞİMDEN ÇOK DAHA YÜKSEK BİR NOT GELDİ. O NOKTADA DA ZATEN YORUM GEREKTİĞİ İÇİN EZBERE DAYANMIYOR. AMA DİĞER KISIM EZBER OLDUĞU İÇİN ONU YAPMAK İSTEMİYORUM. İŞTE BU DURUMDA ACABA ANLIYORMUYUM, YOKSA ANLAMİYORMUYUM DİYE BİR ÇELİŞKİYE DÜŞÜYORUM. AMA, AŞK TEMASINDA DA, EĞER ANLAMADIYSAM O YORUMU DA YAPAMAZDIM.

6. GENEL HATLARIYLA ANLADIM. AMA BAZI CÜMLELERİ ANLAMADIM. BUNU DA BİR SONRAKİ CÜMLEDE YA DA PARAGRAF İÇİNDE O CÜMLEYLE İLGİLİ BİR ŞEYLER BULACAĞIMI DÜŞÜNEREK AKLIMIN BİR KÖŞESİNDE KALDI AMA, TAM OLARAK ANLAMADIM. AMA GENELDEN BİR ŞEYLER ÇIKARDIM.
7. BELKİ GRAMERDEN OLABİLİR. BİR CÜMLE VARDI O AKLIMA TAKILDI. BURADA BELKİ KELİMELERDEN ANLAYAMAMIŞ OLABİLİRİM. MESELA, turn out 'u TAM OLARAK KAVRAYAMADIM. SÖZLÜĞE BAKTIKTAN SONRA ŞUNU SÖYLEYDİM: ÇOCUKLARIN BEYİNİ BELKİ DAHA İYİ ÇALIŞTIĞI İÇİN, DAHA ÇABUK YABANCI DİL ÖĞRENEBİLİYORLAR. KELİMELER SORUN OLABİLİYOR MESELA, GRAMERE ÇOK FAZLA DİKKAT ETMİYORSUNUZ O ANDA, ŞÖYLE BİR OKUYORSUNUZ. HALBU Kİ BİR VİGÜL İLE ANLATILAN BİR ŞEY VAR, ONU O AN GÖRMÜYORSUNUZ. ORADA BİR VURGU VARDIR VEYA. MESELA TÜRKÇEDE HANGİ KELİME VURGULANMIŞTIR, YÜKLEME YAKIN OLAN KELİME. BÖYLE NOKTALARI KAÇIRABİLİYORUZ İŞTE, O ZAMAN ANLAYAMIYORUM.

D.

1. ŞU CÜMLEYİ ANLAMADIM DEDİĞİM ZAMAN, BİR DAHA OKUYARAK, PARAGRAFI YA DA SONRAKİ CÜMLEYİ OKUYARAK BAĞLANTILARI YAKALAMAYA ÇALIŞIRIM. O CÜMLE ÜZERİNDE DAHA BİR TITİZLİKLE DURURUM. GEREKİRSE, BİLDİĞİM BİR KELİMEYE BİLE TEKRAR BAKABİLİRİM.
2. ANLAMADIĞIM CÜMLELER OLDU. NE YAPTIM? TEKRAR OKUMADIM, ONDAN SONRA GELEN CÜMLELERLE ANLAMI DENKLEŞTİRMeye ÇALIŞTIM. MESELA BİR KELİMENİN ANLAMINI BULAMAZSIN, DAHA SONRA O KELİMENİN OLUMLU MU OLUMSUZ MU OLDUĞUNU ÇIKARABİLİRSİN. CÜMLEYE BAKTIĞIN ZAMAN BİR ŞEYLER ALGILARSIN, AMA BUNLAR ÇOK NET DEĞİLDİR. DAHA SONRAKİ CÜMLELER BUNU DAHA DA NETLEŞTİRECEKTİR. BU YÜZDEN BİR SONRAKİ CÜMLEYE DAHA DİKKAT EDEREK OKUMAYA ÇALIŞIRIM. DAHA SONRA DA O CÜMLEYE DÖNEREK, İŞTE BÖYLE BİR BAĞLANTI OLABİLİR Mİ DİYE DÜŞÜNÜRÜM.
3. EVET AMA TAM YARAMADI.

English Version

A.

1. IN FACT, IT IS NOT A PROPER TECHNIQUE BUT ITS SOMETHING EVERYBODY DOES. I TRY TO MAKE A LINK BETWEEN SENTENCES WHEN I READ. I TRY TO UNDERSTAND THE PREVIOUS OR THE NEXT SENTENCE. I DON'T SKIP THE PROBLEMATIC SENTENCE. THE MEANING IS CLARIFIED IF I MAKE SUCH LINKS. THEN IT BECOMES EASY TO UNDERSTAND.
2. YES, BUT THEY DON'T HELP SOMETIMES. THE TEXT MAY INCLUDE THE WORDS THAT I DON'T KNOW, COMPLICATED SENTENCES, THE EXPRESSIONS USED, INVERTED SENTENCES, FOR INSTANCE. THEN I DON'T WANT TO LOOK UP THE DICTIONARY. I'M SATISFIED IN GENERAL, I'M SUCCESSFUL.
3. I DIDN'T UNDERSTAND THE SENTENCE 'Because it's there' COMPLETELY. BUT, AS I WENT ON READING NEXT SENTENCES I STARTED TO MAKE MEANING. SENTENCES MAKE A WHOLE TOGETHER. A PARAGRAPH IS MORE IMPORTANT THAN A SENTENCE FOR ME. THE PARAGRAPHS ARE SIMILAR TO EACH OTHER IN THIS PASSAGE. I WAS ALSO FAMILIAR WITH THE TOPIC.
4. VOCABULARY. BUT I DON'T THINK VOCABULARY MAKES MUCH DIFFICULTY. FOR, I CAN LOOK UP A DICTIONARY. BUT THE DIFFICULTY MAY BE BECAUSE OF THE FIGURES OF SPEECH, I THINK; AND ALSO THE DIFFERENCES IN INTERPRETATION. EVEN WHEN WE READ IN TURKISH, WE CAN HAVE A DIFFERENT UNDERSTANDING AT SECOND READING. IF IT IS ENGLISH THAT I READ, THE WRITER'S LANGUAGE BECOMES VERY IMPORTANT. PERHAPS, WE CANNOT UNDERSTAND WHAT THE WRITER IS TRYING TO SAY DUE TO INDIRECT AND FIGURATIVE EXPRESSIONS. THIS, I THINK, MAKES A TEXT DIFFICULT TO UNDERSTAND MORE THAN OTHER FACTORS.

B.

1. YES, I HAVE IMPROVED IN READING TEXTS. THIS MAY BE BECAUSE WE READ NUMEROUS SHORT STORIES OR BECAUSE OF OUR KNOWLEDGE OF LITERATURE... WE WOULD READ AND INTERPRET SHORT STORIES WHEN I WAS IN HIGH SCHOOL. BUT THIS TIME IT'S COMPLETELY DIFFERENT. THIS MAY BE BECAUSE WE STARTED TO STUDY LITERATURE AS A WHOLE. NOW I CAN LOOK AT FROM DIFFERENT POINTS OF VIEW.
2. I AM A CARELESS READER FIRST OF ALL. PARAGRAPHS RATHER THAN SENTENCES ATTRACT MY ATTENTION. I THINK THAT I CAN GET THE MESSAGE FROM THE WHOLE. I TRUST MYSELF AND I INTERPRET THAT PARAGRAPH AS I THINK OF IT TO BE. BUT THIS CAUSES CARELESSNESS. THEREFORE I'M NOT A GOOD READER.
3. A GOOD READER MUST INTERPRET WHAT S/HE READS WELL. THIS IS PERHAPS RELATED TO GENERAL KNOWLEDGE. IN ORDER TO UNDERSTAND WELL, S/HE HAS TO KNOW ABOUT THE TOPIC AND ALSO BE PROFICIENT IN LANGUAGE.

C.

1. YES, I UNDERSTAND AS A WHOLE. SOMETIMES I CAN INTERPRET SENTENCES INCORRECTLY. AND THIS IS RELATED TO THE WRITER'S LANGUAGE, AS I SAID, INDIRECT OR FIGURATIVE EXPRESSIONS. THEN I MAY NOT UNDERSTAND COMPLETELY.
2. I THINK I CAN DO IT IN GENERAL. I CAN SEE WHETHER I UNDERSTAND OR NOT ACCORDING TO THE EXAM RESULTS. AFTER I TAKE AN EXAM, IF I DON'T FEEL THAT I'VE UNDERSTOOD, THEN, I CONCLUDE THAT I COULDN'T UNDERSTAND COMPLETELY. I LOOK AT EXAM RESULTS AND SEE THAT I UNDERSTOOD. IT IS THEN THAT I FEEL I'VE MADE USE OF CLUES. I FIRST LOOK AT THE QUESTIONS WHILE I'M READING. I READ THE TEXT AFTERWARDS. I THINK I KNOW WHAT I AM LOOKING FOR. BUT IF I HAVE SOME DOUBTS AFTER I TAKE AN EXAM, I CANNOT SAY THAT I HAVE UNDERSTOOD COMPLETELY. IF I CAN TALK ABOUT WHAT I'VE READ OR ARGUE WITH MY FRIEND ABOUT IT, I SEE WHETHER I'VE UNDERSTOOD OR NOT.
3. THAT I CANNOT CONCENTRATE OR CANNOT SPARE ENOUGH TIME. FOR INSTANCE, I READ A PASSAGE ONLY ONCE, THUS, I CANNOT GET A GENERAL MEANING. THIS MAY BE BECAUSE I DON'T SPARE SUFFICIENT TIME OR I DON'T MAKE DUE EFFORT. I DON'T THINK I'M GOOD AT GRAMMAR BECAUSE I THINK THAT WE ALL HAVE GENERAL KNOWLEDGE OF GRAMMAR. IF I DON'T UNDERSTAND THOUGH I SPEND ENOUGH TIME, I THINK THAT IT IS DUE TO GRAMMAR DEFICIENCIES. I MAY NOT PAY ATTENTION TO GRAMMAR AND VOCABULARY WHEN I READ FOR THE FIRST TIME, I NEED TO MANAGE THIS AT SECOND READING.
4. ALL THREE ARE IMPORTANT. WHAT KIND OF A READER AM I? I AM EITHER A CAREFUL OR A CONSCIENTIOUS READER. THE READER'S PERSONALITY IS IMPORTANT. APART FROM THIS, THE TECHNIQUES ARE RELATED TO WHAT KIND OF A READER YOU ARE. FOR INSTANCE I CANNOT SPARE MUCH TIME. THE TYPE OF TEXT IS IMPORTANT, TOO. FOR INSTANCE YOU HAVE TO KNOW ABOUT THE TOPIC IN ORDER TO BE ABLE TO UNDERSTAND A SCIENCE TEXT COMPLETELY. I CANNOT READ AND INTERPRET A SCIENCE TEXT AS WELL AS A PERSON WHO STUDIES SCIENCE DOES.
5. IN FACT, I DON'T HAVE AN EXPERIENCE LIKE I HAVEN'T UNDERSTOOD WHAT I READ COMPLETELY. I MAY NOT UNDERSTAND EVERYTHING. I THINK AT THAT MOMENT THAT IT COULD BE BETTER. THIS IS VALID GENERALLY FOR LITERATURE. THOUGH I UNDERSTAND WHAT I READ, I CAN SOMETIMES INTERPRET INCORRECTLY, I THINK. SAY WE HAVE READ A LITERARY TEXT. I DON'T USUALLY UNDERSTAND WHAT I HAVE TO MEMORIZE. SAY WE STUDY BOTH THE THEME OF LOVE AND THE WRITERS OF THAT PARTICULAR AGE. I EXPLAINED THE THEME OF LOVE IN THE EXAM. I DIDN'T MENTION MOST OF THE WRITERS. I SCORED MUCH HIGHER THAN I EXPECTED. THIS DOES NOT REQUIRE

MEMORIZATION, SINCE IT IS INTERPRETATIVE. BUT I DIDN'T WANT TO LEARN OR WRITE THE OTHER PART BECAUSE IT REQUIRES MEMORIZATION. IT IS IN THIS THAT I HAVE A DILEMMA AS TO WHETHER I UNDERSTAND OR NOT. BUT, I THINK THAT I COULDN'T HAVE EXPLAINED THE THEME OF LOVE IF I HADN'T UNDERSTOOD.

6. I UNDERSTOOD THE WHOLE, BUT I DIDN'T UNDERSTAND SOME SENTENCES. I TRIED TO CLARIFY MEANING BY READING THE COMING SENTENCE OR THE WHOLE PARAGRAPH, BUT I DIDN'T UNDERSTAND COMPLETELY. BUT I GOT THE GENERAL MEANING.
7. IT MAY BE BECAUSE OF THE GRAMMAR OR THE VOCABULARY. FOR INSTANCE, I COULDN'T UNDERSTAND turn out. AFTER I LOOKED UP THE DICTIONARY, I THOUGHT: "CHILDREN LEARN A FOREIGN LANGUAGE FAST PERHAPS BECAUSE THEY HAVE A QUICK MIND." VOCABULARY IS A PROBLEM. YOU DON'T PAY ATTENTION TO GRAMMAR, YOU JUST GO THROUGH THE PASSAGE. HOWEVER, YOU MAY MISS AN EXPRESSION EXPLAINED WITH A COMMA. YOU MAY MISS AN EMPHASIS. FOR EXAMPLE, THE WORD THAT IS NEAR THE VERB IS USUALLY EMPHASIZED. YOU MAY MISS THESE POINTS. THEN I DON'T UNDERSTAND.

D.

1. WHEN I DON'T UNDERSTAND A SENTENCE, I TRY TO MAKE MEANING BY REREADING, READING THE PARAGRAPH OR THE COMING SENTENCE. I PAY EXTRA ATTENTION TO THAT SENTENCE. I CAN LOOK UP A WORD THAT I KNOW TO MAKE SURE, IF NECESSARY.
2. I DIDN'T UNDERSTAND SOME SENTENCES. WHAT DID I DO? I DIDN'T REREAD. I TRIED TO MAKE MEANING THROUGH COMING SENTENCES. FOR INSTANCE, YOU DON'T KNOW THE MEANING OF A PARTICULAR WORD, BUT YOU MAY SENSE WHETHER IT HAS A NEGATIVE OR A POSITIVE MEANING. WHEN YOU LOOK AT A SENTENCE FOR THE FIRST TIME, YOU GET A GENERAL IMPRESSION. THE MEANING IS CLARIFIED WHEN YOU READ THE COMING SENTENCES. THEREFORE, I TRY TO READ THE COMING SENTENCES CAREFULLY. THEN, I GO BACK TO THAT SENTENCE AND TRY TO CONNECT THE MEANING.
3. YES, BUT IT DIDN'T WORK IN THE REAL SENSE.